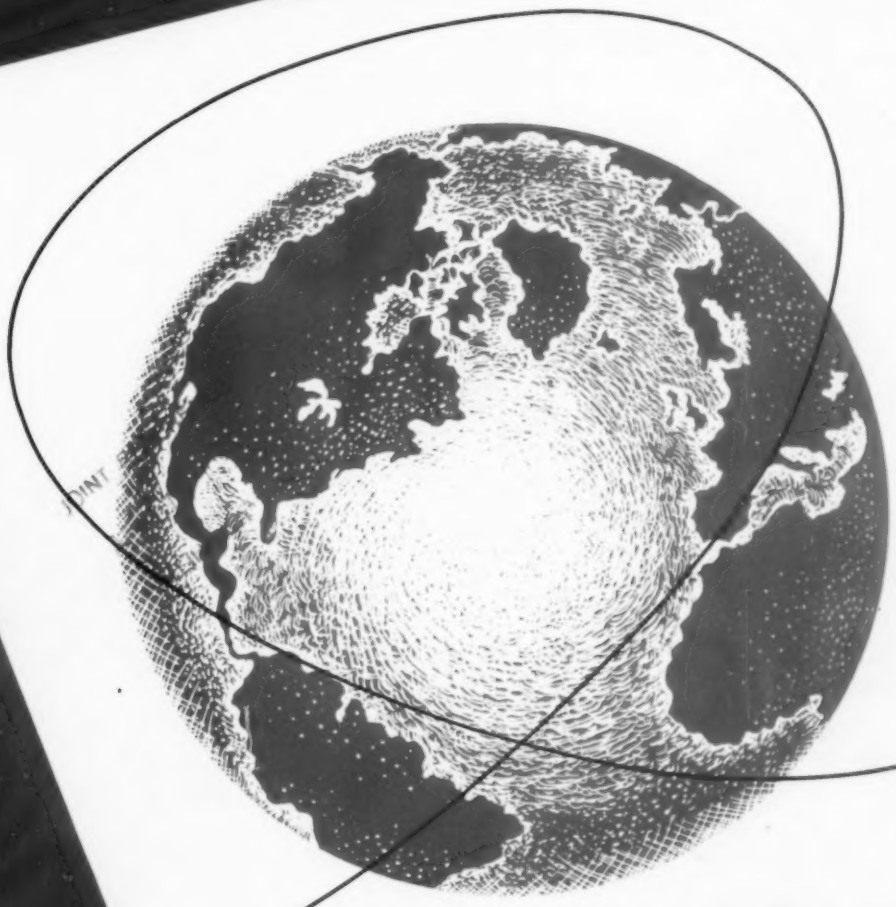
Journal of Housing

APRIL 1952



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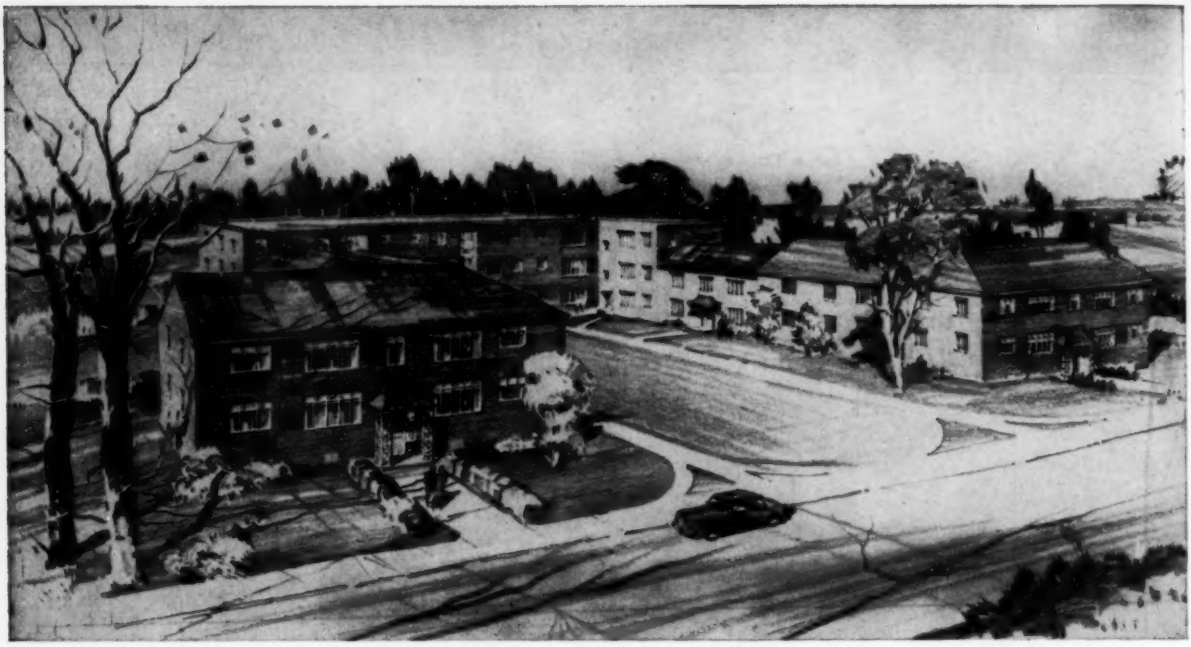

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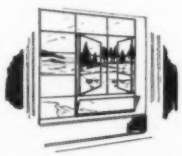

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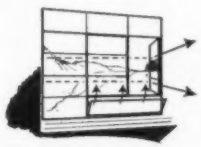

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■ Though this Middleborough, Mass., project was subject to the most rigorous economies in construction, it is unusually attractive. Among the features that give an added measure of tenant—and management—satisfaction are the site planning to take advantage of the natural landscaping . . . and the use of smartly-styled, sturdily-constructed American-Standard heating equipment and plumbing fixtures throughout the dwellings.

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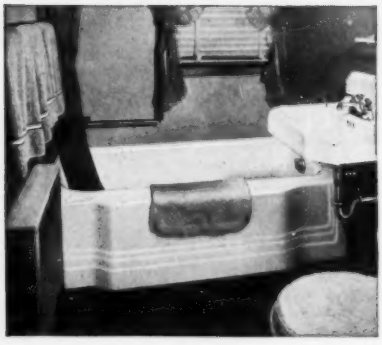
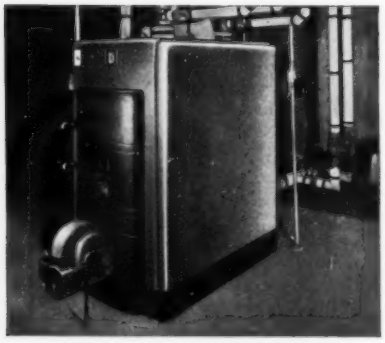
Plumbing contractor: Ernest Margeson, New Bedford, Mass.
Wholesale distributor: F.W.Webb Mfg. Company, Boston, Mass.



The Master Pembroke bath and Hexagon lavatory in this Middleborough bathroom are of durable cast iron heavily coated with lustrous, easy-to-clean enamel. The water closet is of genuine vitreous china. And note the trim and smartly styled convector. American-Standard convectors are used throughout the project.

Occupying minimum space, this Duplex Hostess sink and laundry tray in a Middleborough kitchen is convenient to use, easy to keep clean. It has an 8"-deep sink well on one side, a 13"-deep laundry compartment on the other, and a movable drainboard. Made of rigid cast iron with a thick enamel coating.



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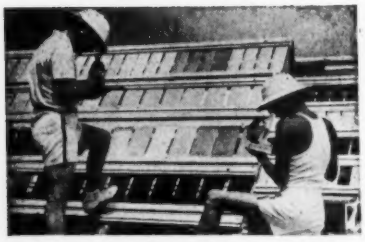

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APRIL 1952
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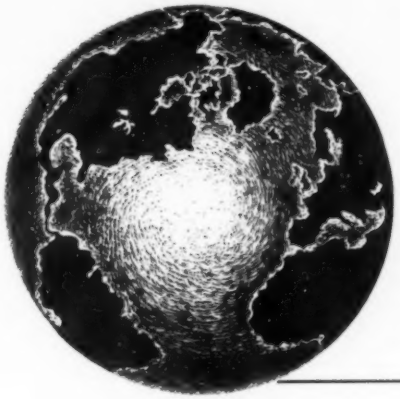


HOUSING AROUND THE WORLD

RAYMOND M. FOLEY
Administrator, Housing and Home Finance Agency

Peoples everywhere in the world today are faced with urgent problems of housing and shelter improvement, as recent years have brought the housing situation to a state of critical shortage in many countries. Housing construction lagged seriously during the great depression of the 1930's and during World War II, when in many countries thousands of existing homes were destroyed or damaged by military action. Since the war, political and economic instability, inflation, shortages of building materials, population increases, and the migration of millions of people from rural to urban areas have prevented housing production from catching up with needs, which continue to grow, with the result, in many areas, of a further lowering of housing standards.

U. S. Role

The Housing and Home Finance Agency, as the responsible central housing agency of the United States government, tries to keep fully informed as to the housing probems of other countries and to lend such assistance as it can to efforts, both national and international, intended to improve these conditions.

The hopes of hundreds of millions of people now include better homes. From our own experience, we understand the great importance of housing and shelter improvement in national and international economic life and, likewise, their importance in social welfare and political stability. The methods for dealing with problems of shelter and community redevelopment are changing everywhere in the light of new conditions and experience. This rapid evolution of principles and methods is affecting the techniques of building, finance, and administration and is also responsible for extensive programs of research and experimentation both here and abroad.

Four groups of distinctly international problems have emerged as a result of these changing conditions and methods, having to do with: (1) technical cooperation, (2) exchange of experience, (3) international trade, (4) international credit.

1—Technical Cooperation

Legislation and executive orders governing United States programs of international technical and economic cooperation and assistance provide for participation by the specialized agencies of the United States government, such as the Housing and Home Finance Agency. Also, United States membership in such international organizations as the United Nations and the Organization of American States carries with it a responsibility for cooperation with these organizations in specific programs, which in the final analysis must be executed by specialized agencies of our government.

Point Four—The United States bilateral "Point Four" program is perhaps the best illustration of international technical assistance and cooperation. Its purpose is to "aid the efforts of the peoples of economically underdeveloped areas to develop their resources and improve their working and living conditions by encouraging the exchange of technical knowledge and skills and the flow of investment capital to countries that provide conditions under which such technical assistance and capital can effectively and constructively contribute to raising standards of living, creating new sources of wealth, increasing productivity, and expanding purchasing power."

In terms of basic Point Four objectives, housing is both an end and a means. It is an *end* because it represents one of the basic elements of the level of living that Point Four aims to improve. It is a *means* because of its relation to productivity (e.g., new farm lands, or new factories, cannot be brought into production without basic shelter and community facilities for the workers). Housing is also a means toward the Point Four goal of political and economic stability, as poor housing is a major cause of social unrest.

Because effective technical cooperation in housing has to start at the stage where a people is, the domestic housing policies and programs of the United States are not automatically transplantable to other countries. As in agriculture and other fields, it is necessary for persons experienced in American methods to devote a period to learning customs and conditions of another country before they can be fully productive in technical cooperation projects. It is particularly difficult to improve housing conditions for people whose annual incomes range from $35 to $350 per year.

Our approach to international technical cooperation in housing and shelter problems contemplates that such activities shall be considered as one facet of an integrated country program and that such housing proposals merit favorable consideration if one or more of the following criteria are met.

1—It is designed to help large numbers of people to start at the stage where they are and develop and carry out programs to improve housing and related community environment in the

country as a part of an integrated program to increase productivity and raise the level of living.

2—It is designed to demonstrate and teach "next step" methods of producing locally basic building materials for construction, including housing and community facilities.

3—It is needed to help break a vital production bottleneck by providing facilities for workers in key industries.

4—It is designed to provide or to improve a system of credit and financing, to facilitate an increase in the production of housing, community facilities, and building materials.

Illustrative of such Point Four housing and community development programs are (1) the cooperative arrangement between Puerto Rico and Antigua for training Antiguan personnel in aided self-help housing techniques; (2) the study of native building materials and improved techniques for their production and utilization in Egypt; (3) the development of basic housing designs and community facilities in Liberia; (4) the study of housing conditions and needs in Costa Rica; (5) the formation of plans for port and city development of Kandla, India, to the end that these plans shall conform to the needs of the people and to an acceptable regional development scheme; (6) the development of a water supply and sewage disposal system for Karachi, Pakistan; and (7) the shelter aspects of the rural village improvement program in Iran.

E.C.A.—Programs in which we have cooperated with the Economic Cooperation Administration (now Mutual Security Agency) include activities such as the demonstration housing program in Germany, the rehousing of refugee population in Greece, and the general housing improvement program in Burma. In these and similar programs, HHFA has made available or helped to recruit qualified technicians and provided technical information and suggestions.

Most of the people in industrially underdeveloped countries still build their own shelter by primitive handicraft methods. For this reason technical assistance in housing must emphasize the aided self-help approach. One of the problems in United States participation in these programs is lack of housing technicians experienced in this approach.

2—Exchange of Experience

As is true with virtually every other nation, we in the United States are eager to exchange experience with other countries. For instance, our debt to the knowledge and experience of the United Kingdom for its garden city developments and decentralization programs, to France for its early realization of the necessity for sound city planning, and to Sweden for its development of cooperative housing projects is readily acknowledged.

From the experience of other nations, we have also learned that the living conditions of the people have a direct bearing upon the degree of their satisfaction with their form of government and that they find a significant expression of their living conditions in the adequacy of their housing for wholesome family life.

On the other hand, the crystallization of a national housing policy in the United States, as a result of growing developments over nearly two decades, is not without its significance for the world in general. It is important, in my opinion, that the United States has formally and fully recognized the provision of satisfactory housing for its people as essential to the success and healthy growth of economic and social life.

Our exchange with other countries takes place through publications, meetings, conferences, correspondence, and —perhaps the most important of all— through contacts of individuals. We participate actively in the work of regional international organizations as well as the specialized agencies and carry on extensive relationships with other countries. For instance, since the end of the war, the United States has become, in a large sense, a major laboratory in housing development and has drawn a total of almost 500 missions to its shores—experts and officials engaged in housing and urban redevelopment.

3—International Trade

A third international problem concerns trade in materials and equipment for housing and in machinery for the production of housing materials. During the war, and for a period thereafter, shortages made it necessary to limit the volume of exports but improved supply eliminated for a time the need for controls on most building materials and on construction and production machinery. Furthermore, international organizations dealing with international trade are working toward improvement of the flow of such commodities from areas of adequate supply to areas of short supply. We encourage this as international conditions permit.

4—International Credit

Closely allied to the problem of materials and equipment is the problem of international credit as it relates to building and housing and the production of materials. Thus far in the postwar period, international credit and financial assistance have been made available for these purposes on a sizeable but yet inadequate scale through such national agencies as the Export-Import Bank and the Economic Cooperation Administration and through international organizations, such as the International Bank for Reconstruction and Development. We believe that there is still a vast opportunity for international cooperation in the field of international credit for the solution of housing and urban development problems.

We feel these problems have to be dealt with on a national scale with the participation of national governments and, equally important, on a world scale through bilateral arrangements and international organizations.

In General . . .

It has been said that the basic requirements for man are food, water, clothing, shelter, fuel, and status in his community. It is obvious that continued inadequacy of the items of food, clothing, and shelter must react upon status. A man whose family has to live in substandard housing, in slum areas, near happier general conditions for others, may well come to feel that he occupies a status inferior to his fellow men living in adequate housing. Our national housing policy, as expressed in the Housing Act of 1949, clearly expresses the role government is intended to play in improving housing opportunity for American families.

I believe that we have a growing understanding that in a democracy, within certain recognizable areas, government is itself a part of free enterprise. Hence, an attack upon housing needs that includes government participation in problems not presently soluble otherwise is not, in my opinion, a menace to free enterprise— but a strengthening of it. For we have built up in the minds of our people— and of the world—the belief that a free people working together can make it possible for all to live at least at a minimum standard of decency. The achievements of the United States are a direct result of the initiative, enterprise, and integrity of a free people. In our international housing work we shall lend whatever assistance we can to help other peoples to develop their own productive enterprise and initiative. The world housing job is so large there is no other way it can be solved.

AUSTRIA

prefabs: mainly for export*

Efforts to solve the tremendous housing shortage in Austria have led to considerable experimenting with prefabrication as a means of building inexpensively and quickly. Using the results of these experiments, three Austrian companies are turning out prefab houses with production line regularity. One of these mass produced houses is used for home consumption—but the other two are transported abroad (accounting for 28.4 per cent of Austria's total exports and bringing in 2 million dollars per month).

Pictured below, left, is the finished product built by the Thermobau Company of Vienna. The house features wooden cavity wall construction with a special thin sheet of insulating aluminum mounted between the two surfaces. Sufficient aluminum for a four-room house weighs only 22 pounds.

Although wood is the basic building material, the outside of the house is plastered so that when finished it is difficult to distinguish from a traditionally built structure; a goal of the prefabers.

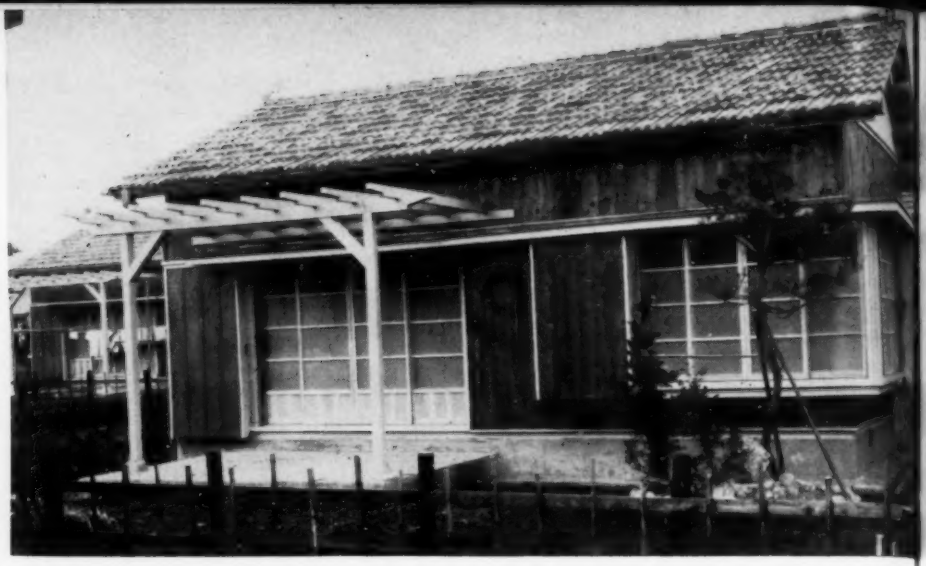
Because of its exceptional insulating qualities, this house has been found particularly attractive to the hot climate of the west Australian mountain area, where some 1300 of them are already in use or under construction. In the wet area of Eindoven, The Netherlands, 60 of them house workers for a radio company.

Also serving the Australian market, the Sagmeister Pre-Fab House Company in Vienna is under contract to deliver 2000 of its houses in two years. Pictured below, right, is an aluminum roofed, wood constructed, two-bedroom house of the type to be furnished to Australia. Built for a total cost of 2900 pounds sterling, or about $8120, the house has living room, kitchen, bath, two bedrooms, and a porch. Though all the elements are prefabricated in Austria, electrical and plumbing systems are supplied from Great Britain, whose fittings conform to the same standard system as the Australian. This house features special anti-termite construction, which makes it attractive to Australia.

The Austria Holzbau company is builder of the house pictured at the top of the page, shown after the second day of construction. It takes about a week to build this house but it is claimed to be as durable as a stone house and now sells for about the same price, although originally it sold for less. Designed to meet the domestic market, these houses are mass produced in sizes that range from one-room shacks to two-story row houses 500 feet in length.

*Information and photographs from the Universal Trade Press Syndicate, New York City.

JAPAN



600 communities have public housing

GEORGE A. WARP
*Associate Professor of Political Science, University of Minnesota**

The public housing program in Japan emerged out of the critical housing shortage caused by the war. This shortage was due not only to war damage, but also to the suspension of housing construction, the evacuation of buildings, and the return of repatriates. In 1945 it was estimated that 32 per cent of the 14 million dwelling houses that existed before the war had to be newly constructed. Private enterprise could not shoulder the burden of reconstruction. In addition to loaning money to private individuals and enterprises for housing purposes, the national government decided to assist local governments in the construction and operation of public housing.

Local Autonomy

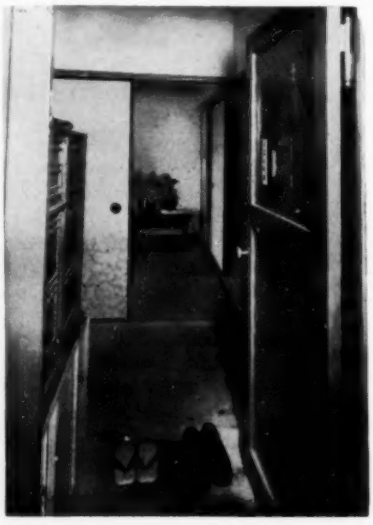
Public housing in Japan is a responsibility of local governments. Six hundred local governments have public low-income housing programs. Municipal housing programs account for 70 per cent of the public housing units; prefectural programs for 30 per cent (Japan has 46 "prefectures"—units of local government with different powers than municipalities). One-eighth of all of the housing units constructed since 1945 have been public housing units.

The corporate device is not used in the management of public housing. Usually public housing is managed by local construction bureaus, though there is no uniformity of organization in this respect.

National Role

On the national level, the Construction Ministry exercises surveillance over public housing, as well as over city planning, river improvement, and highway construction. The housing bureau of the Construction Ministry is divided into five sections: planning, housing construction, housing loan, building direction, and fire damage prevention.

The housing construction section is primarily responsible for low-income public housing. It administers the national government's subsidies; through its force of 30 field inspectors (all of whom operate directly from Tokyo), it examines and controls the local projects. In addition, it publishes pamphlets and publicizes standards on private housing construction.



Types of Housing

Most of the public housing consists of single units made of wood and crowded rather closely together. In the large and medium sized cities, concrete multiple units are being constructed. And the tendency to construct concrete units in such cities is being encouraged by the Construction Ministry. Each year since 1948, the number of wooden units constructed has declined but the number of concrete units has increased.

Japanese public housing has several distinguishing characteristics. The space per unit is much smaller than in western countries—justified on the basis of the multi-purpose character of Japanese rooms and the fact that the incomes of the occupying families are very low. Also, the planning must take cognizance of the prevalence of earthquakes. Lightweight wooden construction has been found to resist earthquake damage and concrete construction is even more resistant to earthquakes and to the fires that follow. This latter fact has supported the tendency towards concrete construction in public housing.

The typical multi-unit structure contains four floors and 24 dwelling units. The buildings have no elevators. The openings for light are as large as possible on the south side. The east and west side walls have no openings at all. In order to adjust the strong light

*Mr. Warp is a consultant to one of NAHO's neighbors at 1313 East 60th Street, Chicago: the Public Administration Clearing House. In this capacity he was in Japan this year advising with The Japan Local Self-Government Institute, under funds made available by the Rockefeller Foundation.

from the outside through the large openings, traditional paper screens are used instead of curtains. The nuance of feelings brought about by the paper screen is greatly loved by the Japanese.

Unit Layout

The apartments have two or three rooms. Rooms are usually matted with tatami (rice straw mats), though in some cases European style rooms have been adopted experimentally. Bedding is placed in the closet while not in use and the bedroom becomes a living room. If the paper screen door that separates the rooms is taken off, the two rooms are converted into one large room. Each unit has a small kitchen and a balcony, which serves as a substitute for the garden. Bathing facilities are not provided, as the occupants are accustomed to using the public bath in their neighborhood. Each unit, of course, has a water closet and wash basin.

Financing

While the unit cost for public housing is gradually increasing, the current average cost is 350,000 yen ($972) per unit—250,000 yen ($694) per wooden unit and 700,000 yen ($1944) per concrete unit. The national government pays one-half of the cost of first-class housing and two-thirds of the cost of second-class housing. (Second-class housing is intended for those with extremely low incomes.) The Construction Ministry determines standard costs for housing units and bases its subsidy upon this standard cost, without regard to the actual cost of the units. The local government's share is usually met by bond issues, though many local governments are using the profits from city owned and operated bicycle race tracks for the support of public housing projects.

The rent charged is controlled by the Construction Ministry in accordance with standards set forth in the Public Housing Law. The rent is fixed only on the local government's investment. The average public housing rent is 40 per cent of the average private housing rent. For wood units, the average public housing rent is 800 yen ($2.22) per month; for concrete units, 1500 yen ($4.17) per month.

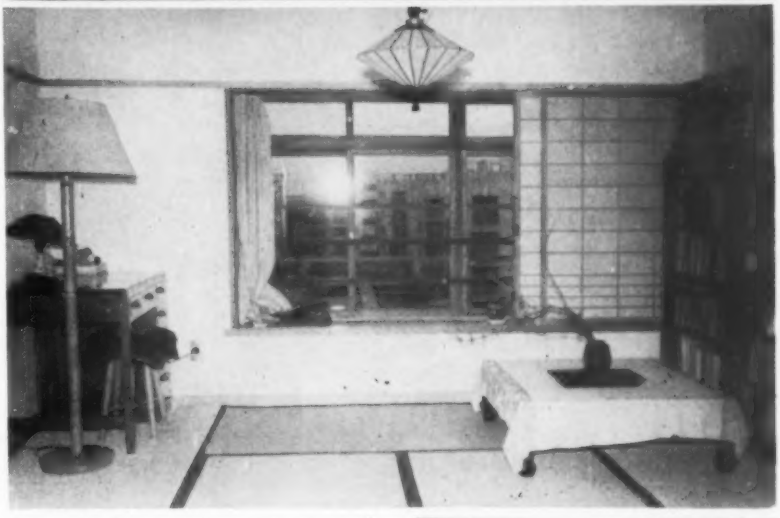
The demand for public housing is very great. In Tokyo, there are 100 times as many applicants as there are units available; in Osaka 50 times as many applicants as units; in rural areas, about 10 times as many applicants as units. After screening the applicants to make certain that they fall within the required income group, those eligible obtain units by lot.

In March 1950, a survey was made of the attitudes of the occupants of low-income housing projects. Most of the occupants desired lower rent. The rental charge is now about 10 per cent of the income of the occupants; they felt that it should be reduced to 7 or 8 per cent of their incomes. Most of the occupants complained about the small space available, desiring larger accommodations. Some of the occupants desired clinics, playgrounds, primary schools, and stores in connection with the projects—features that a few of the larger projects now have.

Fire Insurance

One of the interesting aspects of public housing in Japan is the mutual assistance program that has been organized to cover fire damage to the housing units. On the initiative of officials in the Construction Ministry

(*Continued column one, page* 136)



MEXICO

housing with enthusiasm

"The new Mexico" is the idea that's putting drive, enthusiasm, intensity behind the efforts of the engineers and architects who seem to have key roles in Mexico's housing program.

Although seeds of a national housing policy were planted early in this century in the country's new constitution, the year 1947 apparently marks the beginning of a real effort to attack what is estimated as a need for 3 million homes throughout the country—many thousands of them for families with extremely low incomes now living under badly overcrowded conditions.

The current lively Mexican sense of "a new world in the making" reached across the border into the United States recently when a Houston newspaper reporter was shown through Mexico City's new 1144-unit "public housing" project, now well on the way to completion. The reporter characterizes his guides through the project as "typical of the intensely ambitious young Mexican builders of today." He says that his enthusiastic guides "eat, sleep, and drink thinking of the new Mexico they are helping to build."

On this page are three projects, two in Mexico City, one in Yucatan. Top of page—middle-income houses in Nueva Santa Maria section of Mexico City.

Top above is a view of Colonia Miguel Aleman, seven blocks of 1000 single-family houses built for workers in Merida, Yucatan. Project has its own water supply and sewerage system, reportedly superior to the city's.

Below, some of the 600 units that comprise Colonia del Parque in Balbuena, built in 1949 for low-income families.

And NAHO staff member Helen Anderson, in Mexico on vacation during March, encountered the same feeling when she went about the volunteer job of collecting the pictures shown on this and the opposite page. She got full cooperation from Felix Sanchez, architect with the National Urban Mortgage Bank, chief government agency for the country's housing program. The story that Mr. Sanchez provided on the work that has been going forward in Mexico since 1947 (date of the founding of his bank) is notable for the degree to which modern city planning and architectural ideas have been accepted and put to work. Needs of all types and sizes of families are now being met with projects that mix single-family houses, three- or four-story apartments, and high-rise buildings. Schools, parks, and other facilities are going up simultaneously to create complete new communities. The big 1144-unit project mentioned above, known as Centro Urbano Presidente Juarez, is a combination of 80 separate houses of one- and two-story construction with four bedrooms each, tall 13-story buildings, and three- and four-story structures—with shopping facilities of all kinds also a part of the plan. Chief source of pride to the builders of this development is the truly national character of the proj-

Above, exterior and interior views of one- and two-bedroom single-family houses for low-income families in Mexico City's Balbuena area. These units are sold with the land for 12,000 pesos or about $1390.

Below, middle-income project, "Unidad Esperanza," in the Navarte section of Mexico City, composed of 164 units in four-story buildings. First 10 buildings were put under construction in 1947. Apartments have one, two, or three bedrooms and include servants' quarters complete with private bath and closet space. Designed for professional people, rents are not less than about $115 per month. An eleventh building with 42 units is currently under construction.

ect. They point out that everything going into it can be marked "made in Mexico," from the structural steel to the Mayan mural decorations.

Financing Plan

The public powers and financing formula behind these projects appear to be lodged in the authority of the National Bank not only to extend credit to government agencies and private construction concerns but to itself engage in land assembly and construction. Direct building operations are undertaken by the bank's low-cost housing savings fund. Projects built by the fund are apparently disposed of in two ways: single-family houses are sold to buyers who can get loans for their purchase at a 4 per cent semi-annual interest rate without any substantial down payment; amortization period is usually 15 years. Apartments in multi-unit buildings are rented and tenants have a kind of lifetime lease that gives them full occupancy rights but not ownership of the unit. Mexican policy seems to prefer this system of direct loans through the National Bank to one of government subsidies.

Under this plan, it is not clear how far down into the low-income family groups the program can reach. Whatever the answer, one of the major goals toward which the program is directed is to resolve the problems of the lowest-income families.

Shown right is a model of a new project called "Jardin Balbuena," now under construction in Mexico City. Planned to include some 9000 dwellings, the project will be composed of all types of buildings —high and low apartments, row houses, and single-family houses. When complete it will form a new community.

WESTERN EUROPE... a general view of the housing scene

ASTRID MONSON
*Paris, France**

To an American, current housing progress in western Europe is both encouraging and discouraging. One feels that, given half a chance and a generation of peace, Europe could raise her housing to levels hardly dreamed of before the war. The general level of output she has achieved in the last five years, the energy of her people, and her technical know-how, if brought to bear upon her housing problems, could within a reasonable number of years transform her cities. Yet at the present moment, even before all the damages of the last war have been repaired, the new requirements of defense and rearmament are necessarily cutting down the limited available resources of men, money, and materials and threatening, once again, to postpone the provision of decent housing for the millions of European families who have been living for years under almost intolerable conditions.

What's Happening

Housing—of good quality and in not inconsiderable quantities — is being built in Europe. Moreover, much of it is being made available to the families who need it most—refugees, the bombed-out, the aged, low-paid workers, large families, etc. Though the situation varies considerably from country to country—with such countries as Sweden at one end of the scale and France, Italy, and Greece at the other—there has developed throughout western Europe a widespread recognition of the social and political consequences of bad housing and a basically similar approach to what needs to be done to meet the problem.

There is not a government in western Europe today—whether it be the right-of-center Adenauer or Churchill administrations of Germany and England; the centrist regimes of France, Switzerland, or Holland; or left-of-center countries like Sweden and Norway—there is no one of them that has not officially recognized housing as one of its major responsibilities. Though the details may differ widely and progress may be disappointingly slow, each country has set up some kind of a system of national planning for the provision of housing needs and has worked out a scheme of financing involving various kinds of loans and subsidies to private builders and public bodies undertaking to provide housing to meet those needs. To a considerable degree, the social principles, organizational structure, and financing methods upon which the programs of these countries are based have many points in common. Because the need for housing has been so critical, it would appear that over the years ways have had to be found to solve the problem, often on a pragmatic basis, and those methods that have been found by trial and error to work best have been adopted irrespective of political theory or dogma. There is no question, however, that the techniques of organization and financing first worked out in the Scandinavian countries and in Holland have been used as the basis for the housing programs of most of the other countries in western Europe.

"Social Housing"

The concept behind such housing, perhaps best labeled "social housing," has such widespread applicability in Europe that it ought to be explained a little. It differs considerably from what we term "public housing." Our term refers to housing built with public subsidy for that small segment of our population—perhaps the poorest 10 per cent—for whom private enterprise admits it cannot provide "decent and adequate" accommodations. For the remaining 90 per cent or so, we have assumed that the ordinary speculative building process will provide the needed housing.

In Europe, however, since World War I, housing has increasingly ceased to be a field for the profitable investment of private capital. Two world wars, prolonged social and fiscal instability, constantly increasing building costs in relation to wages, lack of confidence in the future—these and other factors have led to the virtual abandonment by profit-seeking enterprise of the field of home building and to the filling of the vacuum thus created by nonprofit cooperatives, public utility building societies, and public authorities. At the same time increasing reliance has been placed on public financing, as private capital, fearful of the risks, became more and more reluctant to make the long-term investments needed, until to a considerable degree the role of private investment in housing has become that of buying the housing bond issues floated by the various governments.

Meanwhile, the gap between the rent of the housing private enterprise could and did build, and what the average—to say nothing of the low-income—family could pay, grew to impossible proportions. With the interest on long-term capital loans in some countries running from a minimum of 6 per cent to as high as 10 per cent or 12 per cent, economic rents for new private dwellings were so high that only a small fraction of the population could afford them—and these families were not, generally speaking, those who most needed housing. Governments were caught in a dilemma: if they controlled the rents of new housing at pre-inflation levels, practically no private housing would be constructed, as it would have to be operated at a loss; if, on the other hand, they left the rents of new housing uncontrolled, the vast bulk of the families needing it would not be able to afford it. Either way, private housing construction would come virtually to a standstill.

The Production Record

The necessity of a high degree of governmental assistance to housing may be measured against the total housing situation in western Europe at the close of World War II. Before the war, western Europe was building some 800,000 dwelling units a year, representing an average annual building rate of 1.30 per 100 existing dwellings. This percentage varied from 0.40 in Italy to 2.85 in Sweden. Of the 62 million dwellings existing in 1939, over 3.6 million were completely destroyed during the war, more than 5.7 million partially destroyed, and 12.5 million damaged. In Greece and west Germany, approximately one out of five homes was de-

*Mrs. Monson was formerly senior economist for the Detroit Housing Commission and is now living in Paris, where her husband, Donald Monson, is housing consultant to the European office of the Mutual Security Agency.

stroyed. In France, Greece, Italy, and western Germany alone, 3 million homes were demolished—of which 2 million have not yet been rebuilt.

In addition to this destruction, building during the war was virtually at a standstill in most countries, so that it can be estimated that at least eight years' normal production—6.5 million units—were lost. Between 1947 and 1950, inclusive, about 2.4 million units were built, including new temporary units and reconstruction of entirely destroyed homes, but excluding the repair of partially destroyed dwellings. By 1951, the annual rate had reached 900,000. Various authorities have estimated that, in order to catch up with the war's arrears and the population growth since 1939, a total of 6.5 million new dwellings are needed—and that to eliminate the most dangerous, insanitary, and dilapidated units, another 4.6 million must be built.

The Organization of European Economic Cooperation has stated that if western Europe can increase its annual building rate to 2 million units a year by 1956 and maintain this rate for twenty years, by 1976 the war's losses will have been made up, a reasonably normal standard of housing will have been reached, and, from then on, a rate of 1.3 million dwellings a year will be enough to care for the population increase (600,000 units a year) and a 1 per cent replacement (700,000).

Varied Pattern

The situation varies greatly from country to country, of course. The Economic Commission for Europe has estimated that 21.9 per cent of Europe's pre-World War II dwelling units need to be rebuilt—the percentage varying from 4.5 per cent in Switzerland to 28.1 per cent in Italy and 49.7 per cent in Greece. In France alone, where many dwellings date from the eigthteenth century, the total need is said to be 4.7 million units, or 31.5 per cent of the total. Unfortunately, some of the countries with the greatest need are building at the slowest rates: thus, France in 1950 completed only 1.6 new dwelling units per 1000 inhabitants, whereas Norway built 6.9 and Sweden 6.1. Perhaps the brightest spot was western Germany, where the rate increased from 1.7 in 1949 to 4.9 in 1950. Yet even France has shown steady increase, doubling its 1948 figure of 0.8, preliminary data indicating that the ratio may currently be as high as 3.5, compared with her pre-war high of 1.6. And Italy, another country where the housing situation is critical, has raised her ratio from 0.5 in 1948 to 2.0 in 1950, compared with a pre-war rate of 0.5.

The problem of expanding western Europe's annual housing production from the current rate of 900,000 to the needed 2 million is a complex one, involving the reduction of building costs, increased productivity, provision of sufficient manpower and materials, and above all, securing adequate financing, both for the capital costs of the homes and to enable the people who need the housing to pay for it. Reams have been written on the importance of reducing building costs by rationalizing production, standardizing parts and equipment, using large-scale construction methods and machinery, prefabrication, etc. In some countries these goals have been achieved to a considerable degree; in others, production methods are extremely inefficient and costly. Essentially the problem boils down to one of *organizing* the building job efficiently, from the early planning stages —through provision of adequate financing, supervision and coordination of the various building trades—to occupancy. Though much remains to be done here, considerable progress has already been made and more will be made as the experience gained through such French and German projects as those described on pages 129 and 130 can be applied to further projects.

Obstacles

The greatest obstacles to the continued expansion of housing production are, however, not felt to be technical but rather financial. It is easy to forget the tremendous drain on Europe's resources that the reconstruction of her industrial, transport, and communication facilities meant in the years after the war and of the strains on her economy that the current rearmament program is creating. Because in any one year only a very small dent can be made in the solution of the chronic housing crisis in which many countries find themselves, housing is frequently an easy and convenient item to strike out of the national budget when other and more imperious demands have to be met. Because, as has been shown above, so large a share of housing production is dependent in one form or another on state aid, this often means that only a fraction of the needed housing gets built.

In 1950, the equivalent of $6 billion (at 1949 exchange rates) is estimated to have been spent by 13 western European countries for housing, of which about two-thirds was spent on new dwellings — an average of $4600 per unit. It is estimated that even with considerable improvement in building efficiency, increased costs since 1950 would make $4000 per dwelling unit the lowest average that could probably be achieved in the next five years without substantial and undesirable lowering of housing standards. The building of 2 million dwellings a year would thus require a capital outlay of the equivalent of $8 billion, compared with the $6 billion spent for all housing construction in 1950. Since at 1952 rates of exchange the $6 billion now represents only $4.8 billion, this means that actually the equivalent of $3.2 billion a year would have to be added to western Europe's 1950 capital outlay for housing to achieve the needed rate of home building.

Source of Funds

Whether or not this amount would be available depends, of course, on a number of factors. There is no doubt that there are vast unused sources of capital that could, under certain conditions, be drawn into the housing investment market. In France alone, it has been recently estimated, some $4.8 billion is being held in gold hoardings and other assets that owners, fearful of inflation, war, and other catastrophies, refuse to invest. Other countries have enormous sums in national social security funds that are not being invested in housing because of the long-range uncertainties involved. In still others, private capital is available only at such high interest rates as to make its use for social housing impossible — the high rates again being due to the risks involved. Finally, certain of Europe's most favored countries — Sweden, for example — actually have more capital available than they feel it advisable to invest in housing because of danger of inflation and have actually artificially held down the volume of new home building below what it could otherwise be.

These factors and others have led to widespread interest in the possibilities of an international housing bank, which, backed by the various governments of Europe, could give suitable guarantees to investors and provide adequate protection to draw into the housing capital market large sums of money that are now held idle and unproductive. This proposal will be discussed in greater detail below.

A third approach to the question of expanding Europe's housing production is perhaps best exemplified in the recommendations of the recent conference on housing held by the International Confederation of Free Trade Unions. Basing their position on the necessity of raising the standards of living of Europe's workers if they are to have the will and the strength to resist the blandishments of communism, the

I.C.F.T.U. concluded that it was the responsibility of the various governments to find the additional financial means for a long-range, adequate social housing program if existing private and public sources are inadequate and called for the institution of effective and equitable taxation as necessary to achieve this end. Fiscal reform in such countries as France and Italy is long overdue and would raise large additional tax funds that could be used for housing as well as other needed purposes.

A variation of this approach is the movement, led by certain French industrialists and some trade unions, to tax all French industry 1 per cent or 2 per cent of payroll (see page 130).

Subsidy

So far the financial measures mentioned have been for the capital financing of the housing. The other side of the problem is making the housing thus built available at rentals average families can pay. In France, where an industrial worker with two children has a monthly income — including family allowances — of perhaps 35,000 francs, or $100, the full economic rent, including utilities, of a modest new flat if no state aids were given and if the usual private interest rate of 6 per cent or more were paid, would amount to approximately 15,000 francs a month, compared with the 1000 or 1500 francs he is accustomed to paying for the dwelling — admittedly often a slum — in which he lives. Through a variety of measures, such as construction bonuses to builders, absorption of half or more of the interest rate, rent and family allowances, and other direct and indirect subsidies, the French government — aided in some cases by special rent allowances paid to workers by employers — has managed to get the actual monthly rent paid by a typical worker for a new "moderate-rent" dwelling down to 2500 or 3000 francs, or from 7 per cent to 9 per cent of his income. With utilities, taxes, and other charges, the family's total monthly shelter costs would average more than 5000 francs a month, or about 15 per cent of income — which can be compared with the usually quoted 2 per cent or 3 per cent of income a French worker is accustomed to pay for rent. In a great many cases, the writer was informed, tenants manage to pay for such new dwellings only because there are two working family members.

The French situation sketched above is admittedly one of the worst in Europe, because wages are abnormally low and housing costs abnormally high. But to a greater or less degree it illustrates the large subsidies that have to be paid by governments to bring rents of new housing down to what families can pay. These range from perhaps 30 per cent of economic rents in the more prosperous European countries to 50 per cent and even as high as 70 per cent or 80 per cent in the most difficult situations. Thus it is not only a question of raising the capital costs of the required program of new housing — which could probably be done — but also appropriating, year after year, enormous sums to subsidize the difference between economic rents and "social" rents. A number of standard techniques have been developed to attempt to achieve this goal, all of them admittedly palliative in nature rather than contributing to the only basic solution of the problem — a two-pronged attack involving the lowering of housing costs through greater efficiency and productivity, control of speculative profits in land and building materials, and decreasing the interest rate by appropriate fiscal measures, while at the same time through greater productivity and an enlightened industrial policy, wage levels are raised.

Labor's Role

The war's devastation and the critical housing shortages that resulted have led to a more articulate demand for housing on the part of labor. The communist-controlled unions, of course, had no desire to solve this problem: the more wretched and dissatisfied the people were, the better they liked it. When, however, the noncommunist unions of the world left the communist-dominated World Federation of Trade Unions and formed the I.C.F.T.U., housing became one of the subjects for which there was considerable demand for action. During the past year, experts from about a dozen countries have been meeting to work out a program for social housing that could be the basis of a Europe-wide attack on the problem.

During February, representatives of the trade union organizations of the various countries met in Paris for three days and established the general outlines of a housing program for which each proposed to work in his own country and through such international bodies as the UN, the O.E.E.C., and the International Labor Organization. Countries represented were Austria, Belgium, France, Germany, Great Britain, Greece, Italy, Netherlands, Denmark, Norway, Spain-in-exile, and the U.S.A. Observers were also present from such organizations as the I.L.O., the Mutual Security Agency, and the Council for Europe. A total of 100 delegates and observers were registered, including some of the leading trade union figures in Europe.

The conference adopted a "Trade Union Declaration Regarding Social Housing in Western Europe" for submission to the regional council of the I.C.F.T.U.'s European regional organization.

International Bank

In conclusion, a brief word might be said about the constantly increasing interest in some kind of international guarantees that might be set up to encourage investment in housing. For reasons stated above, European investors, except in the most stable and prosperous countries, have not found housing a desirable investment. Proponents of the international bank idea feel that the sharing of risk among a number of countries, with stabilization of the investment through some kind of tie-in with the dollar, would bring out much hidden capital. With sufficient guarantees, they feel, enough money can be raised to finance an adequate housing program — including particularly the large social security funds that under present conditions are lying inert.

The possibilities of such a plan, and the details of its administration, are being studied by a number of agencies, including the I.L.O., the Council of Europe, and now by the I.C.F.T.U. itself. The latter organization has repeatedly made the point, however, that any system of guaranteed mortgages must, if it is not to be diverted from its purpose, be so set up that it cannot be used by speculators to secure cheap credit and subsidies, which would inevitably raise building costs at the expense of the future tenants. It is expected that within a few months concrete proposals will be coming out as to the advisability of such an international housing bank and how it could work. If this problem, too, can be solved, Europe can look forward to an era of real progress in housing.

Examples of Action

It is obviously beyond the scope of this article to describe all the various measures being taken in the 15 or 16 countries of western Europe to try to solve these problems. Instead, there have been selected a few specific current developments that seem significant because they have made, or promise to make, a real contribution toward solving, respectively, some of the (1) technical, (2) cost reduction, (3) city planning, (4) organizational, (5) political, and (6) financial problems involved. The presentations from France and Germany on pages 129 and 130 are meant to do that multiple job.

YUGOSLAVIA

workers' housing provided by industries*

Provision of housing for workers in Yugoslavia is the responsibility primarily of the industries that employ them. Within this broad policy, each of the six Yugoslav states makes its own regulations and sets its own practices regarding housing. Hence, the federal government does very little actual home construction.

Immediately after the war, Yugoslavia adopted a five year economic plan that allotted the equivalent of about 800 million dollars for reconstruction of damaged areas, including housing, and for replanning a number of the country's largest cities. During the first year of the plan's operation, some 60,000 units were rebuilt. Subsequent plans are expected to call for more attention to housing, which is still seriously scarce, as the industries that are being developed come to provide the necessary economic resources.

Ordinarily, there is no government subsidy provided for housing undertaken by industries. Exceptions are made where the industry is just getting on its feet and finds it impossible to build homes for its workers under its own power. About 60 per cent of Yugoslavia's housing is built either by factories, by communities, or by the state. The remaining 40 per cent is private housing, built by the owners for themselves and their families. There is, however, no speculative building of homes.

Prior to January of this year, at which time the economic policy of Yugoslavia was radically changed (the dinar, for example, was devalued from 50 to the dollar to 300 to the dollar), the average cost of construction for a two-bedroom apartment, measuring around 900 square feet, was $15,000. Three-bedroom units run from around 1000 to 1300 square feet, the latter area being true for large towns only.

Rents are established by the state and vary somewhat but, generally, the maximum is 10 per cent of income and an average rent runs to 5 or 6 per cent.

There is little high rise building in Yugoslavia, since the people seem to prefer either two-story row houses or three- or four-story blocks of flats. Densities are kept within a maximum of about 40 persons per acre.

*Much of this information on Yugoslavia comes from Slovenian architect and city planner, Marjan Sorli, currently visiting the United States on a United Nations fellowship.

Pictures were furnished by Ernest Weissman, chief of the United Nations housing and town planning section, and by Martin and Marjorie Meyerson of the University of Pennsylvania.

NEW HOUSING GOES UP BESIDE THE OLD IN RIJEKA, SEAPORT IN NORTHWEST YUGOSLAVIA

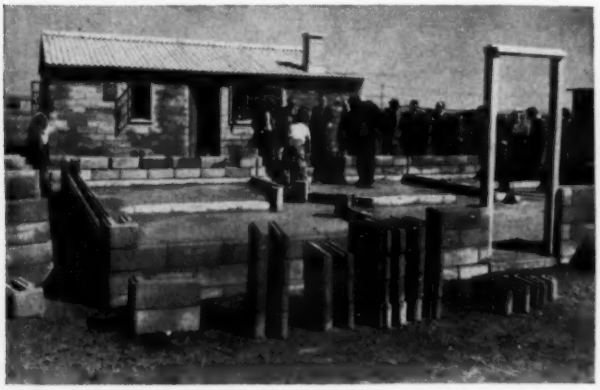
TITOGRAD EMERGES FROM THE RUINS OF THE OLD CITY OF POBLGORITZA

SOUTH AFRICA

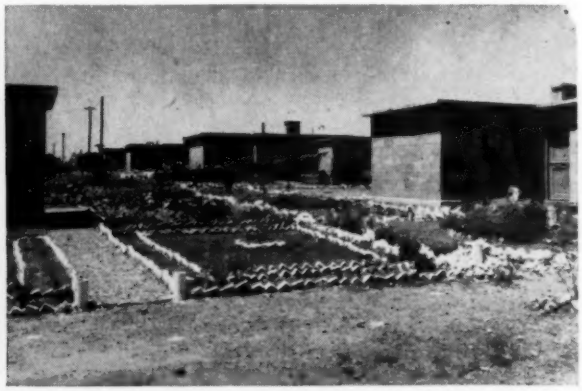
low-rent housing gets national, local subsidy

Pictured here are examples of typical low-rent houses built in South African cities for the native sections of their populations. Financed partly by the national government and in part by the cities, housing falls into two categories: sub-economic and economic. Lowest-income families live in the former, which is subsidized by both the central government and municipalities. So-called economic housing rents for amounts that will pay off the government loans and is made available largely to middle-income families.

To give an idea of the extent of publicly assisted housing operations, in late 1950 Port Elizabeth alone had built a total of 10,500 units for non-Europeans.



View of work proceeding on an economic housing scheme built by the Benoni town council in 1950.



General view of a sub-economic housing development completed at Germiston in Natal.

These Capetown city council houses are rented only to tenants who earn less than £25, or about $70, per month.

Blocks of flats built by Capetown city council. Rents range from about $1.15 to $2.60 per week, exclusive of electricity.

CANADA

Newfoundland builds low-rental project

JEAN CAMERON
Information Division, Central Mortgage and Housing Corporation, Ottawa, Canada

Today in St. John's, the capital city of the Province of Newfoundland, 140 families are living in new apartments that are costing them, on an average, $30 a month. Just one year ago, those same families were living in appalling slum conditions. Their accommodation is part of a scheme initiated by the government of Canada whereby low-rental housing can be built with the cooperation of governments at three levels—federal, provincial, and municipal.

In 1949, St. John's (a city of about 50,000) needed housing—and needed it badly. Her teeming water front slums and tenements were among the nation's worst. The per capita income of her residents was the lowest in Canadian cities, a fact that then precluded the possibility of a large-scale housing program. Private enterprise could not have built dwelling units to rent at prices the people could afford to pay. When the federal government passed an amendment to the National Housing Act in December of that year to assist in the construction of public housing, Newfoundland was among the first to open negotiations with the federal authorities.

The Site

The city of St. John's was able to act quickly on the new legislation for two particularly good reasons: the enthusiastic support given low-rental public housing by Premier Smallwood of Newfoundland and the fact that much of the land ripe for development had been bought by the municipality (with a provincial government loan) during the final year of the war. The first site is a rectangle of some 16 acres, rather toward the edge of the built-up area, on which already stood a quasi-charitable residential institution. There are small parks, a denominational school, and a bus line near the boundaries of the site.

In early 1950, the sod was turned in St. John's first housing offensive for low-income families. Work was begun on 35 double-duplex buildings, which came to be known as the Ebsary Estate project.

The site layout was prepared by architect Paul Mechino of St. John's and the buildings were designed by the architectural department of the Central Mortgage and Housing Corporation, the government's agent in the housing field. Every building contains four units—each with its own entrance and exit. Of the 140 units in the entire project, 100 have three bedrooms and an over-all area of 820 square feet; 40 have four bedrooms and an area of 940 square feet. Each building is insulated and the units have hardwood flooring. The heating is by space heaters and provision is made for cooking by wood, coal, or electric stove. Of frame construction, which is almost universal here, the buildings have been finished in wood siding, cedar shakes, or asbestos shingles; they alternate between flat and hipped roof forms. Various color schemes have been used to give the project an attractive and interesting appearance.

The people who moved into these new, modern apartments all came from the condemned housing sections of St John's. Their salaries are small but the rents they pay for their homes are based on their incomes. A limit to tenancy is annual income, which must be between $960 and $3180. A short while ago, the tenants organized a community center at the project, which has been renamed Westmount. Plans are being made for vocational training and adult education. There will be sports facilities and Boy Scout and Girl Guide troops. The project has given the people more than a roof over their heads.

The Financing

The story behind the successful completion of this project is one of complete cooperation in the three spheres of government. The terms of the legislation that made this type of housing possible are incorporated in Section 35 of the National Housing Act. It provides that 75 per cent of the financing of a public housing project, such as St. John's, be handled by the federal government; the remaining 25 per cent is provided by the provincial government or jointly by the province and the municipality concerned—in this case, Newfoundland and the city of St. John's.

The first of the three agreements covering the development of the project was signed by the federal government, the provincial government, and Central Mortgage and Housing Corporation. This agreement laid down the general conditions pertaining to the acquisition of the land, servicing, and

the design and construction of the apartments.

The second agreement was signed by the province, the city of St. John's, and CMHC. Under its terms, the city asserted title to the property and conveyed it to the partnership consisting of the province and Central Mortgage and Housing Corporation. The city was reimbursed for servicing the land and, in addition, is receiving a yearly payment of $25 per unit for the provision of water and sewer facilities.

The third agreement, when the project was completed, set up the St. John's Housing Authority to manage and administer the project. The housing authority is composed of residents of St. John's. The amortization period for the project is 50 years and operating profits and losses will be shared by the corporation and the province on the 75-25 per cent basis.

The St. John's project provides subsidized rental housing. However, Section 35 also provides for the construction of economic rental units, houses for sale, and the development of land for residential construction.

Land Policy

The public acquisition and preparation of land for house construction, in Canada known as land assembly, is necessary because of the inability of many municipalities to service land as fast as construction activity consumes it. Before World War II, most municipalities had a surplus of land on which roads had been constructed and water

(*Continued column three, page 132*)

THE 1952 RECORD UNDER CANADA'S NATIONAL HOUSING ACT

LAND ASSEMBLY

St. John's, Newfoundland—607 lots; completion of services expected early summer.
Corner Brook, Newfoundland—202 lots; tenders to be awarded in spring of 1952.
Atikokan, Ontario—200 lots; there are 50 acres in this project and acquisition of another 90 acres is being considered.
Windsor, Ontario—325 lots; project nearing completion; to be used for rental housing.
St. Thomas, Ontario—255 lots; project almost completed; 40 lots to be used for Section 35 rental housing project; remainder to be sold to builders and individuals for residential construction.
London, Ontario—374 lots; project in advanced stage.
Ottawa, Ontario—600 lots; services installed for approximately 131 lots.
Trail, British Columbia—277 lots; work recently started.
Kingston, Ontario—660 lots; project delayed pending annexation of area in which 123 acre site is located.

SUBSIDIZED RENTAL HOUSING

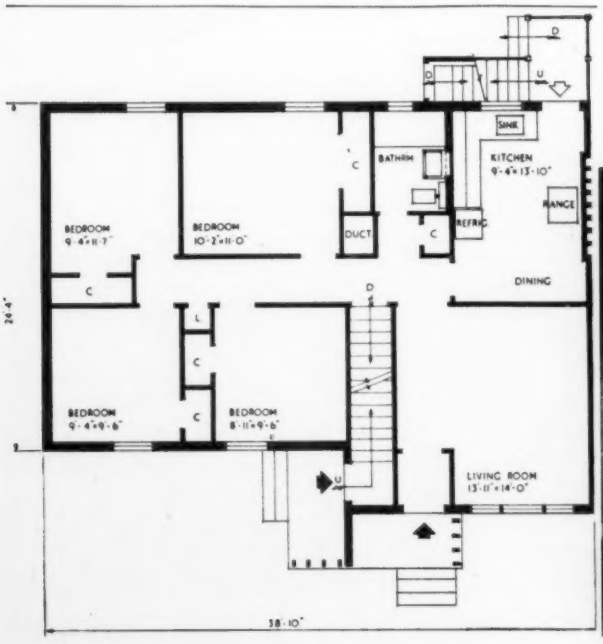
St. John's Newfoundland—140 units—the Ebsary Estate and another 152 units to be built on part of the land assembly project mentioned above.
Saint John, New Brunswick—88 units; project almost completed.
Halifax, Nova Scotia—200 units; project delayed because of high costs.
Vancouver, British Columbia—193 units; project delayed because of high costs.

ECONOMIC RENTAL HOUSING

Windsor, Ontario—325 single family dwellings to be built on land assembly project mentioned above; construction under way.
St. Thomas, Ontario—40 single family dwellings to be built on land assembly project mentioned above; construction under way.
Fort William, Ontario—70 units proposed.
Hamilton, Ontario—500 units proposed.
Prince Rupert, British Columbia—50 units proposed.

LAND ASSEMBLY, ECONOMIC RENTAL COMBINED

Brockville, Ontario—425 lots; 40 single family dwelling units proposed; remainder of lots to be sold to builders and individuals for residential construction.
Guelph, Ontario—435 lots; 70 single family dwelling units proposed; remainder of lots to be sold to builders and individuals for residential construction.
Kitchener, Ontario—1000 lots; 90 single family dwelling units proposed; remainder of lots to be sold to builders and individuals for residential construction.



TYPE "B" HOUSING

Three different building types have been used for the Newfoundland project, as well as various color schemes, to give it visual interest. Pictured below is one of two flat-roofed building types used—type "B." The pitched-roof building on page 127 is also built with a flat roof. Floor plan left is a typical layout in a type B building.

GERMANY

new methods used to cut costs*

Schleswig-Holstein, one of western Germany's 11 so-called "Landes" or provinces, has had to provide shelter and sustenance for about 1 million of the 9 million refugees and expellees from the east, who have become western Germany's most critical postwar social and economic problem.

In the fall of 1949, the German central trade union organization, with the help of E.C.A., took the initiative in working out a plan for the building of a 10,000 dwelling pilot project for refugees, to be erected where job opportunities would make possible integration of those unemployed families into the German community.

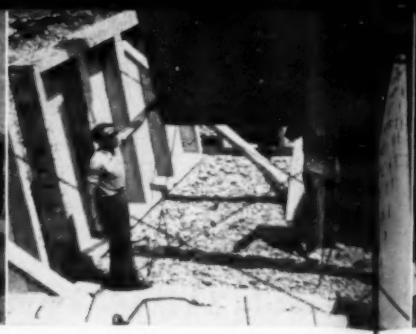
An organization was set up to plan and supervise the project, in which the unions, the Lande government, the cooperatives, and other interested groups participated. Of the 88.5 million DM (Deutschmarks) needed, about 40 million came from American E.R.P. funds, 36.5 million from the Lande, and the remaining 12 million from other sources. The Lande government provided staff for coordinating the design, planning, and procurement of building materials. The German central cooperative wholesale assumed responsibility for the procurement of building materials, which was facilitated by the fact that all 10,000 units were so designed as to need only a limited number of different dimensions and to use standardized fittings and equipment. The actual building was done by existing nonprofit housing enterprises. The building site organization was so worked out as to make possible continuous construction activity, with many parts — stairs, cornices, windows, roof parts, tie beams, etc.—standardized and prefabricated.

The result was a cost per unit — in spite of rising costs during the period of construction — which averaged 15 per cent below the usual cost for similar dwellings, though the dwellings were actually better equipped than the average, each having a complete bathroom and built-in kitchen furniture. The savings, it is generally agreed, arose out of the combination of central planning, central management, central financing, central procurement of building materials, and central supervision of bids and contracts, making it impossible for costs in any one of the 84 building sites to get out of line, since standardized materials and uniform type plans were used in all.

*A supplement to Mrs. Monson's western Europe article on page 122, providing a concrete example of some of the general problems and programs she describes.

At Hannover last summer, Germany's first postwar building exhibit was opened to visitors from all parts of the world. It has been widely heralded as an outstanding event of 1951. Above left are two-story houses built as a demonstration for the "Constructa" exhibit. At the right, municipal housing in Hannover, part of a new "neighborhood" development undertaken by the city that was open for visitors at the exhibit.

Picture top right is one of the projects completed under the Schleswig-Holstein plan outlined above. Structures on others of the 84 sites were three- and four-story apartment buildings.



FRANCE*

prefabrication system used in Le Havre c

It is perhaps paradoxical that in France, one of the most backward countries in Europe as far as housing is concerned, prefabrication should be found an important technique in increasing housing production. This fact is all the more noteworthy since prefabrication (as distinguished from parts standardization, site rationalization, etc.) has not proved a significant cost-cutting device in countries with technically advanced conventional building industries. It is the disorganization of French building that explains this paradox and the hopes pinned on prefabrication there.

Perhaps as a consequence of the low building rate, the organization of French building has changed little since 1900. The architect does not furnish working drawings, providing only outline sketches of floor plan and facade, and depending on the tradesmen to work things out in the accustomed manner. There is usually no general contractor, the architect arranging with successive small contractors and independent tradesmen to get the job done as best he can. The contractors often have to finance their own operations, furnishing building money and waiting for their pay until the building is completed. As each contractor—and, often, apparently, each workman—works at his own convenience, the building money may be tied up for several years. It is not unusual for a contractor to go bankrupt, thus further delaying matters while litigation drags through the courts. France's rapid inflation of the past few years means that often contractors or the owner run out of money and work stops until more can be raised. The result is a dragged-out building process that boosts costs beyond all reason.

Physically, the lack of working plans and a general contractor results in a disorganized construction sequence, with one trade often undoing the work of another. For instance, after walls are plastered, plumbers and electricians come in and laboriously chop holes in them for pipes or wiring. Similarly, openings have to be cut by hand into concrete floors. Wires and pipes are left exposed, making a rather messy looking job when viewed with American eyes.

In this confusion, prefabrication has one virtue: the designer must work everything out in detail before any construction begins. This applies not only to the structure but also to how the building is erected. The result is that, when a good prefab system is worked out, there is, in effect, a general contractor: no overlapping of trades, no chopping of holes by hand into concrete floors and walls, and a much more finished looking job. Furthermore, the work is done with a minimum of lost motion.

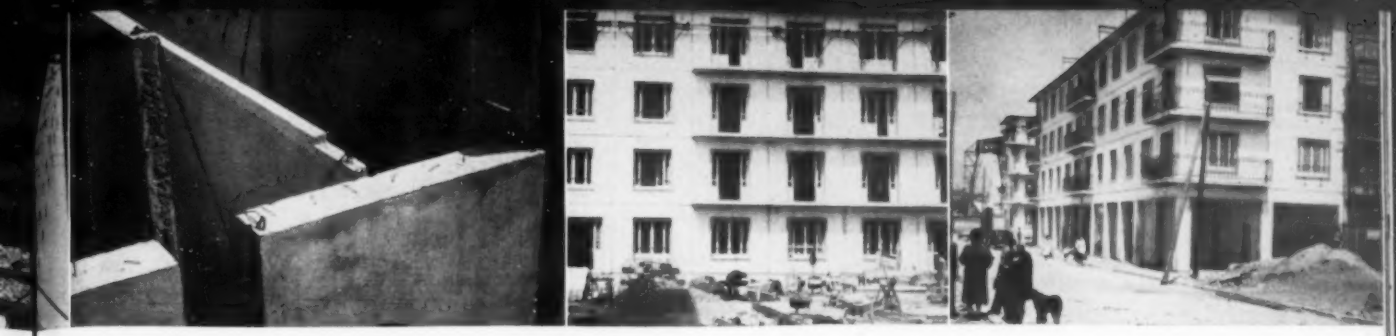
All this would not be particularly important in a country where the building industry was already on an efficient footing but in France the savings are remarkable. A controlled experiment recently conducted by the Ministry of Reconstruction and Urbanism in building a project for personnel of the Supreme Headquarters of the Allied Powers in Europe (SHAPE) is reported to have shown a saving of 60 per cent in site man-hours and an over-all construction cost reduction of 20 per cent.

Le Havre's Project

This particular type of prefab system was developed in Le Havre as part of the moderate-rent program of Habitations à Loyer Modéré (H.L.M.) by an architect-engineer who was disgusted with the fact that housing projects had been under construction there for up to four years and were *still* unfinished. In the system developed at Le Havre, precast panels comprising an entire wall or floor of

*A supplement to Mrs. Monson's western Europe article on page 122, providing a concrete example of some of the general problems and programs she describes.

government, employers, employees jointly finance housing "hb



c costs 20 per cent

a room are manufactured. They are made of successive layers of facing material, insulating concrete, and interior finish plaster, all cast in metal molds. Windows and doors—complete with glass, paint, and hardware—are cast in place. Reinforcing steel is so placed that, when the concrete has set, the panels can be raised by chains attached to hooks cast into their tops. Overhead cranes pick them up and store them in the yard for the required curing period.

During construction, trucks like our plate glass carriers take two panels at a time to the site. Here a crane picks them up and in minutes sets them in place, while two workmen attach temporary chains to hold them while the building frame is poured. Thus the usual process is reversed: instead of the frame supporting the walls and floors, here the walls become the form for the frame.

Timing

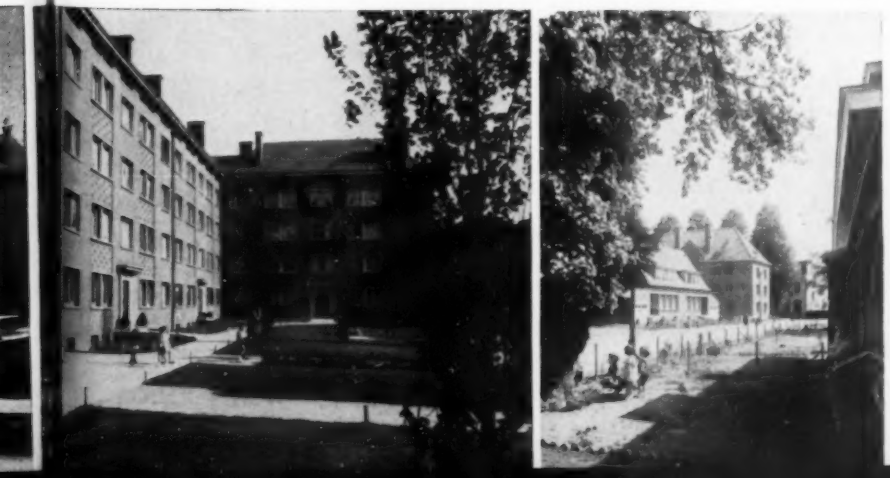
Foundations are set in two days. An entire story—floors and walls—can be set in place in an afternoon. With time for pouring the corners, curing, etc., two weeks are allowed between floors. Only a little touching up is required —plastering of the corner joints, for example. Stairs are also prefabbed and are delivered to the site with all surfaces finished.

As the panels are cast in the factory in horizontal frames, little skilled labor is required. Almost any one can lay the tile floors or mosaic walls, formerly a difficult and time-consuming process. The tiles—or small, flat stones —are spread face down on the steel bed of the form and the concrete poured over them. Where wires or pipes are needed, they are pre-assembled, dropped into fixed slots in the form, and covered with concrete—the results being not only cheaper but much neater looking.

Through this method, the construction time of four-story apartment buildings has been cut from years to four months. Costs have been cut by 20 per cent. Labor has been used to much greater advantage. Time has been saved —itself a saving in a period of inflation.

Similar prefab systems are spreading in France and the ministry is undertaking a program of several thousand such units in the Paris region. The system has been given approval by the noncommunist French trade union federation and its extension called for as an effective way toward solving at least one aspect, the technical, of France's critical housing situation.

g "hborhoods"



LABOR-MANAGEMENT FINANCING

Roubaix and Tourcoing, twin wool textile cities in the northeast of France, have long suffered under some of the worst housing in Europe. Two-thirds of their 300,000 citizens live in slum or overcrowded quarters. The 13,000 "courrée" dwellings of Roubaix—facing on sunless, jam-packed inner courts —are notorious. Fortunately, the area contains one of the strongest noncommunist trade union organizations in France and its employers have a long tradition of benevolent paternalism, a combination that has led to the working out of a joint labor-management attack upon the housing problem.

During the German occupation of the early 40's, the union leaders and the employers here had worked together in the resistance and learned to trust and respect one another. Wages were frozen by German decree but a roundabout way of increasing incomes was worked out by which the mills paid "rent allowances" to their employees. At the same time, a committee, composed of an equal number of representatives from labor and management, started working on a plan for the improvement of the area's housing situation as soon as the war should cease.

It was decided to start building up a fund for housing construction to be raised by a voluntary 1 per cent tax on payrolls levied by the employers upon themselves and to be administered by a joint labor-management committee, the "Comité Interprofessionel du Logement." The amount was later raised to 2 per cent, where it remains at the present time. In 1947 the C.I.L. started buying up a number of building sites in the Roubaix-Tourcoing area and set up a central office to plan, design, and finance the construction of a program of 15,000 dwelling

units, to be built in well planned neighborhoods with community facilities, such as nursery schools, health centers, etc.

To date the C.I.L. has built about 3000 dwellings and is now building at a rate in excess of 1000 a year. Twenty-five projects are under construction. The houses and flats are built in mixed neighborhoods, young or old couples without children living in relatively small flats and families with children living in larger units, usually row houses. The construction is of high quality, the design and equipment being well above the average for France. Particular attention is paid to site planning, with playgrounds for the children, shade trees, and other pleasant amenities that successfully keep the housing from having "that project look."

Government Aid

The projects are organized and financed under the H.L.M. program, in which nonprofit building societies or cooperatives are eligible to receive state loans, at low rates of interest and easy amortization terms, of up to 85 per cent of construction costs. Sponsors of the individual societies are generally disinterested citizens: in the Roubaix-Tourcoing area, they are often plant managers or labor union officials. A society secures from the C.I.L. land on which to build and money to cover the difference between total building costs and the maximum government loan. In return, the C.I.L. designs the projects, sets up the financing, purchases the materials, lets the contracts, and generally supervises the operation. The efficiency of this centralized system has resulted in almost all building in the area, except a few luxury "villas," being sponsored by the C.I.L.

Some detail as to the financing may help to illustrate France's difficulties in this regard. With all the advantages of central, large-scale design, wholesale purchasing, and a relatively continuous operation—but utilizing, still, conventional building methods—the C.I.L.'s costs have averaged about 2 million francs ($5700) a unit, the homes varying in sizes from 64 to 82 square meters (700 to 900 square feet). Between 70 per cent and 85 per cent of the construction cost—1.4 to 1.8 million francs per unit—is borrowed from the government at an interest rate of 2.75 per cent or from private sources at the going rate of from 6 to 7 per cent, in which latter case the government pays up to 4 per cent interest annually as a "bonification." The usual period of amortization is from 25 to 35 years, with some forgiveness for the first 10 years. Construction bonuses, given to all builders under certain conditions, are also granted by the government.

Even with this subsidized interest rate and a nonprofit operation, the monthly shelter rent of a typical C.I.L. unit comes to 5900 francs—about $17. This is reduced by two rent allocations—one, a government allowance amounting to 1040 francs ($3) and the other a special rent allowance paid voluntarily by the companies participating in the C.I.L., amounting to 40 per cent of the rent, or 2360 francs ($7). The net rent to the tenant is 2500 francs, which may be compared with a typical textile worker's base pay of 20,000 francs—plus, if he has a nonworking wife and two children, about 15,000 francs in family allowances. The net rent amounts, then, to about 7 per cent of his income, but with utilities added, to about 7000 francs or 20 per cent of income. (Coal is between $35 and $40 a ton in France.) By contrast, the rent in a slum "courrée" is from 100 francs to 500 francs a month. Persons who feared that the French worker "would never pay more for his home" were confounded when the number of applicants for C.I.L. units in this area outran the available supply 10 to one!

Homes for Sale

Although the majority of the C.I.L.'s units are designed for rental only, several hundred of the houses were planned for individual ownership and will be bought by their occupants over a period of 25 years.

The C.I.L. formula of equal labor-management participation and responsibility has become the basis of a national movement, with C.I.L. organizations now operating in about 25 different towns throughout the country. One of their basic principles, in addition to the 50-50 basis of representation between labor and managment, is the complete separation of the housing operation from the employer-employee relationship. This is not "company housing." The projects are owned by the cooperative or housing society and a family does not lose its home if its employment ceases. The national C.I.L. organization is working for a program including: adequate financing for the carrying out of a five year program of construction utilizing large-scale planning and modern construction methods; an increase in the national appropriation for the H.L.M. program; a change in the regulations governing the savings banks, permitting them to invest a greater part of their surplus capital in housing; greater flexibility in the conditions under which members of H.L.M. societies can own their homes; and legislation permitting the condemnation of land for public purposes when needed for the building of H.L.M. projects.

In addition, certain C.I.L. groups—notably the Roubaix-Tourcoing organization—are sponsoring a bill setting up a national compulsory 2 per cent payroll tax for a housing fund to be administered along C.I.L. lines. Although this is said to have the support of the Ministry of Reconstruction and Urbanism, employers in some sections of the country, notably Paris, are opposing the bill vigorously.

WANTED . . .

bylaws and information on employee associations of local housing authorities.

If you have in your authority an association organized to promote recreation and welfare activities among employees—*not* one for collective bargaining on wages, hours, and working conditions—the Housing Authority of the City of the Los Angeles would like to hear about it. Jess Swanson, administrative officer of the Los Angeles authority, Post Office Box 2316, Terminal Annex, Los Angeles 54, will welcome copies of bylaws of such groups or any other information on their set-up and activities.

CANADA—

(*Continued from page* 128)

and sewer services installed but this "cushion" supply has been greatly diminished as a result of the high level of construction in Canada during the last 10 years. St. John's is now reaping the benefits of having acquired nearly 800 acres of almost vacant land, at agricultural use value, some eight years ago.

In providing rental housing, the units constructed may be for economic or less-than-economic rentals, depending on the type of accommodation for which there is the greatest need. Where units are leased at less than economic rentals, the resulting annual losses are borne in the 75-25 per cent ratio mentioned above by both the federal and provincial governments.

St. John's Ebsary Estate was Canada's first project financed under Section 35 of the National Housing Act but more and more communities across the country are taking advantage of the facilities open to them, as the table on page 128 makes clear.

ITALY:

Photo Vasari, Rome

a new plan for workers' houses

For some years, Italy has had in operation a number of programs, public and semi-public, for building housing for the homeless and for low-income families. In 1949, however, a new plan, designed to build 200,000 workers' dwellings in seven years, was adopted by the government. Called the "Fanfani Plan" after its author, it is administered by the government but actual building operations are carried out by an institute known as INA Casa — a semi-public group whose work is directed by an administrative board of government representatives.

INA Casa was organized in 1950 and already has in the planning stages and under construction, in addition to scattered groups of dwellings, 10 complete new neighborhoods and another nine smaller residential areas. These "new quarters," as they are called, are scattered throughout Italy, in or near large cities with existing services and close to industrial areas.

It is estimated that the entire seven year program will cost a total of about 500 million dollars. Of this total, the state will provide something over one-third. On an annual basis, the state will put in about 24 million dollars and an additional 40 million dollars will come from compulsory contributions by employers and workers, of which the employer contributes two-thirds and the employee one-third, the whole sum equalling 1.8 per cent of wages. Profits from rentals and payments for houses that are sold will add approximately another 30 million dollars annually to finance the scheme.

Houses built by INA Casa are either sold or rented, with first priority given to the homeless and second priority to the worst housed workers. Tenants or buyers are selected by committees in each province, made up of representatives of local governments, workers, employers, and INA Casa.

Photos furnished by the Monsons and the Meyersons (see pages 122 and 125). Left to right across the bottom are postwar housing in Rome, Treviso, and the new INA Casa San Paolo quarter in Rome. Above right is a new quarter in Naples.

ECUADOR

new low-cost homes follow earthquake devastation

WARREN CORNWELL
Housing Administrator and Chief,
Pan American Union
Ecuador Reconstruction Mission

In an earthquake devastated area, the Republic of Ecuador is building decent, safe, and sanitary houses for $630 each. The monthly payments on these two-bedroom houses run about $2.60 per month over a 20 year period: roughly 15 per cent of the buyer's gross monthly real income. There is no interest charged on the loans that finance these homes and the land is provided free. Although construction workers belong to trade unions, their wages by United States standards are low. An unskilled laborer earns 40 cents a day, a skilled carpenter a little more than twice that amount.

In addition to the two bedrooms, this minimum house has a kitchen with running water and a built-in stove. The bathroom has a flush toilet, wash basin, and overhead shower. A covered hall-porch completes the house. The house covers approximately 300 square feet, with outside dimensions of 30 feet x 10 feet. One bedroom is 9 x 9 feet, the other is 9 x 6 feet. The kitchen is also 9 feet x 6. The bath is 3 feet x 4 feet, 6 inches. The covered porch is 3 feet wide and 15 feet long.

The house is easily expandable. One more bedroom or a living room can be added later by the home owner directly in front of the end bedroom, which creates a front patio, and by enclosing the hall-porch with wood and glass.

Structural System

The structure itself is of reinforced concrete frame with nine reinforced concrete columns tied top and bottom with double reinforced concrete belts. Thus in the case of earthquakes the whole house will rock together. The nonweight-bearing curtain walls are of locally manufactured clay brick. Almost all walls, exterior and interior, are plastered with cement, lime, and sand in proportions of 1:1:4. Paint is applied in most cases. For aesthetic reasons, some brick is left exposed, although this touch is not very popular locally.

The roof is a flat reinforced concrete slab. The window frames and door frames are of eucalyptus wood and are hinged rather than double-hung. Eucalyptus is practically the only available wood and it is also used for the bedroom floors, laid either on "sleepers" imbedded in a slab or on studs. The floors of the remainder of the house are concrete.

The best features of the house are: it is of simple design and low cost; it is earthquake resistant, vermin-proof, easy to keep clean, and should have a very low maintenance cost. Its main faults are that the roof is too costly and too great a percentage of the building materials are not readily available locally.

Financing is done by the central government, which has levied special taxes on liquor, amusements, etc., in order to carry on the redevelopment work. Thus, the income of the agency doing the job, the Tungurahua Reconstruction and Planning Board, averages $800,000 per year. Land is acquired by eminent domain proceedings.

PAU Aid

This bold new program of action in the low-cost housing field had its origin in the Pan American Union's division of housing and planning, headed by Anatole Solow.

As the result of an earthquake in 1949, PAU was asked late in 1950 to send a team of housing experts to help rebuild 42 towns and villages that had been levelled. Mr. Solow borrowed the author from the Housing and Home Finance Agency's division of slum clearance and urban redevelopment in Washington and recruited Rafael Pollock, a planning administrator from New York, and Dr. Ospina Restrepo, a UNESCO social anthropologist from Bogota, Columbia.

The complex problems of morale building were handled by Dr. Ospina, who also organized part-time classes in the building trades to augment the limited labor supply. Mr. Pollock was assigned the task of putting into effect plans already drawn and the job of organizing the planning work. The author, who started his housing career a dozen years ago with the San Francisco housing authority, served as chief of the technical division of the local planning and reconstruction board and dealt with the economic and organizational problems of the program.

This combination was augmented temporarily from time to time by other

technical experts, chief among whom was Colonel Manuel Font, one-time chairman of the San Juan housing authority and now in charge of the Title I program in Mayaguez, Puerto Rico. Colonel Font, an M. I. T. man, taught the young Ecuadorian civil engineers the principles of mass construction of housing through field demonstrations and an in-service training program.

The Damage

The August 1949 earthquake disaster took place high in the Andes, about 90 miles south of the equator, and had its center in the ancient province of Tungurahua. Although the quake was of only medium intensity, construction practices had been such that the result was a major catastrophe.

In some towns, not one building was left standing; in others only the big churches and larger public buildings tumbled, leaving the one-story houses and small stores either cracked or untouched.

The pre-Inca dwellers of this region built with sticks and straw. Their Inca conquerors taught them how to cut stone and how to make walls of bamboo and earth. But the priests who followed in the wake of the Spanish conquistadores brought with them the knowledge of making roofing tiles and other customs of southern Spain, which in turn had been learned from the North African Moors during their 300 years of occupation. But the roofs of Andalusia were not for Ecuador.

It was these tiles that ultimately proved to be the biggest troublemaker during earthquakes. The tiles were heavy and not properly secured. The Spaniards put a lot of weight on top of the buildings but forgot about reinforcing the walls. In the larger towns, the main streets were lined with two-story structures, the front walls of which were of hand cut stone held together by lime mortar or simply by gravity mixed with faith. The rear and side walls were of sticks and mud. On top of this unequal rectangle were hoisted heavy timbers, tied in place with ropes. Then came the tiles. Now, when the earth moved ever so little, the lateral forces became so great that either the roof collapsed on the inhabitants within or slid into the street to bury the passers-by.

The problems, then, were to replan the towns, to rehabilitate the bewildered and homeless people, and to introduce such simple modern construction practices as diagonal bracing and reinforcing and to execute a realistic housing program.

Self-Help

The first problem the South Americans solved themselves. A small group of United States and European trained Ecuadorian engineers and planners, the oldest of whom was 34, headed by Wilson Garces Pachano, worked with a Washington geologist and a San Francisco building code expert to plan the new towns and draft a model building code. Mr. Garces, who was born in Ambato, the provincial capital of the stricken province of Tungurahua, had received his masters degree in city planning from the Illinois Institute of Technology in Chicago.

The other problems were left to the Pan American Union experts, who arrived in Ambato in April 1951. By the end of May, Galo Plaza, president of the republic, had reorganized the nine-man Tungurahua Reconstruction and Planning Board along lines similar to those of a North American local housing authority. The president assumed the chairmanship of the board. In six weeks, the first houses were up in Pelileo. In addition to the minimum house described above, four larger designs were used, including one with a "Taller" or home workshop for cottage industries.

Pelileo's Past

Pelileo, population 5000, was one of the towns completely levelled. The town square became a crowded cemetery, the ruins themselves entombed even more. Situated in a beautiful little well-watered hanging valley, the town had been a prosperous farm trading center. And as it was located on the main route between the high Andean cities and the rich Amazon Valley to the east, its future seemed assured. But the springs that were responsible for its prosperity were also responsible for its devastation. The saturated land shook like a bowl of jelly. For two years after the quake and prior to the arrival of the PAU team, the survivors lived in makeshift huts or tents that had been old United States army equipment, sold by the War Assets Administration to Palestine and donated by the new settlers of that land to the Ecuadorians. Painted on the sidewalls of the tents is the word "JUNTA," or Board, and next to it the faded Star of David . . . and the still more faded "U.S.A."

Today Pelileo has nearly 200 houses completed, as well as two new six-room grade schools and an infirmary and maternity center. The high school and the general hospital will be completed in two months. Also under construction

DESTRUCTION . . . . . RECONSTRUCTION

is a new city hall and a trade school. The streets and curbs are all installed and the market square and sports stadium are already in use. The new location is on safer, higher ground, one mile from the old town site and less likely to quiver quite so much when the local fault line slips next time.

All in all, Anatole Solow's Pan American Union team and the local authorities working together have put up schools and churches, city halls and public laundries, labor halls, chamber of commerce buildings, child nurseries and hospitals in 20 towns in the earthquake area. In addition, President Galo Plaza has used the PAU experts to initiate still another housing program in the coastal city of Esmeraldas, where 10 city blocks were recently "slum cleared" by fire.

And, moreover, the President of Ecuador and the Pan American Union have done all the spade-work for the establishment of a national housing agency, ready to start low-rent housing programs for Guayaquil and Quito, the country's two metropolitan centers.

JAPAN—

(*Continued from page* 119)

and local housing leaders, the National Public Housing Mutual Aid Association was organized on March 31, 1950. This association has the status of a non-profit corporation. The governor of Tokyo serves as president and the nine directors include three national officials and five prefectural officials.

The mutual aid association provides protection against fire damage at rates that average 40 per cent less than corresponding commercial rates. During the first year of operation (April 1, 1950 to March 31, 1951), 1,882,146,647 yen of coverage was purchased by local governments for 8,708,288 yen. The amount of the premiums exceeded the expenditures for loss claims, administration, and equipment by 3 million yen—or more than one-third of the total premiums.

On March 1, 1952, the Japan Housing Association was organized. Its membership will include national and local housing officials as well as individuals interested in both public and private housing. In the past, while there has been no national association, the Construction Ministry has brought all of the local housing officials to Tokyo for annual or semi-annual conferences on national housing policy and has sometimes sponsored regional housing conferences. The new association will have an executive director. Its leaders expect it to become the Japan counterpart of NAHO.

ENGLAND

uses native material for Cotswold housing

In the Cotswold section of England, new housing developments are being raised beside buildings that have been standing since the 14th century. The Cotswolds are well known for their distinctive architecture and the beauty of their native stone and local authorities have felt it important to maintain the unique character of the area. An abundant supply of local stone has enabled them to use it for their new, government assisted housing projects, which blend perfectly into their background.

Normally, building with stone is a costly procedure. In other areas of England, for example, it was found in 1949 that to build a three-bedroom stone house of about 950 square feet would cost almost 30 per cent more than to build the same house of brick. However, is was recognized that the plentiful supply of stone in Cotswold communities would alter the cost picture—and that, further, its durability could be counted on to cut maintenance cost.

Pictured above is a group of row houses at Chipping Campden in the north Cotswolds. Below is a house of reconstructed stone at Blockley. Pictures were supplied the JOURNAL by Mrs. Clare Spurgin, chairman of the North Cotswold housing development agency.

THE WEST INDIES

a visitor looks at the islands' housing

BETTE JENKINS
*Manager, Gratoit Redevelopment Site, Detroit Housing Commission**

In all of lively Puerto Rico there is no activity more striking than its extensive housing program.

An island 100 miles long and 35 miles wide, with a population of more than 2 million, might be expected to have blighted spots—and it does. Slums at their worst exist in both urban and rural areas.

But little Puerto Rico, with all its insular difficulties, its unemployment, and its congestion, is attacking its housing problem at a furious rate. On nearly every busy street in San Juan, largest city and nerve center of the island, construction is going on. This pattern occurs in the smaller towns as well, both in the coastal and mountain areas.

There is large-scale commercial construction—banks with tall towers, department stores with a New York look, small but streamlined factories. There is a growing network of modern highways to supplement the narrow old streets of the towns and cities and the mountain roads that thread through the interior of the island. Vast public programs are under way—schools, clinics, hospitals, and exciting modern additions to the University of Puerto Rico that do not seem out of place among the original baroque buildings.

In addition to all this construction, housing, both public and private, is going up everywhere. Redevelopment under Title I of the Housing Act of 1949 is also beginning. Those who have observed the island over a 10 year period all agree that the changes during that time have been amazing.

The Slums

Puerto Rico is not proud of the fact that its slums have become famous—or infamous—and the effort is to see that they are famous for having been eliminated. Among the famous is La Perla—"the pearl"—acres of slums in San Juan, perched by the sea along the great ancient wall that surrounds the oldest section of the city. And there is El Fanguito—"little mudhole"—a jumble of tiny shacks stretching for miles on winding Martin Pena Channel in Santurce, suburb of San Juan.

Plans have been made for clearing out the crazily balanced cubicles and festering common areas of La Perla and for replacing them with a public park. El Fanguito is already disappearing.

To know the story of El Fanguito is to know much about housing progress in Puerto Rico. Families numbering 8000 huddled together to form El Fanguito. Puerto Rico's most fundamental problem has always been too many people on too little land. As metropolitan San Juan became crowded to the bursting point, there seemed to be only one thing for a growing family to do: build a makeshift hut on filled ground along the channel. Additional families kept coming to live in El Fanguito. After there was no more land, they built on posts over the water. To reach the houses, they made shaky, narrow bridges from any materials they could find.

The formality of purchasing a piece of land for a house is frequently overlooked by the Puerto Rican in search of shelter. Instead, he has built on publicly owned land (or water). Consequently, as slum clearance occurs, the squatter facing displacement receives payment only for the structure he occupies and the land reverts to public use. This has been the situation at El Fanguito.

The attack on El Fanguito began by designating it as a slum zone area in accordance with the Slum Freezing Act of 1945, insular legislation that is, in a sense, a forerunner of Title I of the Housing Act of 1949. Use of this procedure meant nothing could be bought or sold in the area, no major repairs or changes made, without authorization. Money was made available by the insular government to clear 83 acres, or about one-fourth of the slum housing on the channel. Thus far, 2400 families have moved away from it and there are plans for those remaining.

Relocation Housing

Solution to the gigantic problem of moving one-fourth of all the people of El Fanguito was the building of San Jose, a relocation project initiated in 1947 and financed with insular funds. San Jose embodies the concept that good planning calls for varied types of housing to accommodate families with differing income levels or needs. It includes low-rent public housing, improved lots for private construction,

*This article could not have been written independently. Many have contributed material, some without realizing it. The list of these "contributors" is too long to include here and some of the more important names are not known. It includes the American priests who arranged trips to little known places; the friends who made editorial suggestions; all the staff members of the several housing agencies visited; and, without exception, the warm, friendly, anxious-to-be-helpful people of Puerto Rico and the Virgin Islands.

and something called "land and utility housing," described below.

Many of the families of El Fanguito abandoned the huts they had built and moved to San Jose's low-rent housing—but others participated in the "land and utility" program, which was initiated in Ponce and is known only to Puerto Rico. It provides for the moving of the more substantial, usable dwellings from a slum area to individual lots that may be rented or purchased. The lots at San Jose sell for $975, with payments of $7 a month, or they may be rented at an amount ranging from $1 to $4 a month. (When the "land and utility" scheme originated in Ponce, as an instrument for aiding the lowest-income families, rents were sometimes set as low as 50 cents a month.)

The house that the average Puerto Rican wants to transport to a more desirable location does not have plumbing. Therefore, an important feature of the "land and utility" scheme is construction of a utility unit at the intersection of every four lots. This installation furnishes separate plumbing facilities for every family and is included in the rent or purchase price of each lot.

Next low-rent project to be developed by the housing authority for San Juan will be located on a part of El Fanguito. A total of 1150 units will be built to replace houses razed when families moved from them to San Jose. Also, San Juan's first two redevelopment sites have been selected in parts of the remaining slum areas of El Fanguito. The first Title I site will be designated for more public housing, the second for light industry and commercial use.

Rural Nonfarm Program

Beyond the capital city of San Juan, in rural areas, even in some of the most faraway spots, similar action is being taken.

The small town of Guayama near the south coast is an example of what is happening in many places. Guayama has a population of 15,000 but its jurisdiction reaches into the sparsely settled mountain country and includes a total of 30,000 people.

TOTAL LOW-RENT PUBLIC HOUSING AND REDEVELOPMENT PROGRAM, PUERTO RICO AND THE VIRGIN ISLANDS

LOW-RENT HOUSING

All authorities with the exception of the Virgin Islands have a "land and utility" program.

	Completed Units		Units Under Construction
	Federally aided	Insular	
Puerto Rico Authority*	979	3500	3854
San Juan	1120	702	3110
Ponce	848 (Combined insular, federal total)	Combined in federal total	828
Mayaguez	476	132	740
Virgin Islands	136		240

REDEVELOPMENT

Puerto Rico Authority*	Fourteen sites selected. Schedule for 1952 calls for receipt of federal funds for six redevelopment projects and three open land projects by June 1952.
San Juan	Twenty-six potential sites selected. Plans submitted and preliminary loan authorized for one site. Plans in preparation for second site.
Ponce	Twenty-five potential sites selected. Final plans for one site awaiting approval of DSCUR. Preliminary studies under way for two sites. Preliminary studies soon to be started for four additional sites.
Mayaguez	Approval of temporary loan and capital grant received for one site. Final advance plans nearing completion for one site. Preliminary studies to start soon for one site.
Virgin Islands	Four sites selected and initial studies started.

*The Puerto Rico Housing Authority operates throughout the island, except in the cities of San Juan, Ponce, and Mayaguez, where there are separate authorities.

In January, workers are busy in the cane fields of Guayama—but the entire sugar operation provides slightly less than half a year's employment. Thus, since sugar is Puerto Rico's major product, a high percentage of families have incomes far below the maximum for admission to low-rent public housing. It is estimated that 90 per cent of all Puerto Rican families meet the income requirement.

So Guayama has a housing problem—and a housing program. The cane workers for the area live in the hills near the town. Their houses are unbelievably small, nearly always consisting of one or two rooms, fashioned very often from large flattened tin cans or packing boxes.

But within the village, the Puerto Rico Housing Authority has built Fernando Calimano Villodas, a low-rent project of 146 units. The project—or caserio—was completed in September of 1948, with combined federal and insular funds.

The rector of the church at Guayama was present at the dedication of Calimano and has become an eager proponent of public housing. He makes it a point to ask wistfully of housing officials when they are going to build another caserio in Guayama. The answer is found in the 1950-51 annual

GUAYAMA'S LOW-RENTAL HOUSING—ADMINISTRATION BUILDING CENTER—GARBAGE STATION RIGHT

SAN JUAN'S FAMOUS "LA PERLA" SLUM, NOW BEING CLEANED OUT

report of the Puerto Rico Housing Authority, which lists Guayama among 43 towns for which program reservations have been approved by the Public Housing Administration. Further, Puerto Rico's low-rental housing program for a six-year period includes a total of 900 units for Guayama.

The enthusiasm of the rector is shared by one of his friends, a tenant at Calimano, who, despite a language barrier, made it clear to us that he, his wife, and their six children find their rowhouse apartment to their liking. With a weekly income of $15, this tenant (a houseman in a substantial local establishment) is able to shelter his family in a three-bedroom unit for $6.50 a month, plus electricity and kerosene for cooking.

A visit to Guayama's public housing provides an explanation for the tenant's satisfaction. There is a marked divergence between the flimsiness of most of the individually built huts and the mass construction accomplishments of Calimano. Calimano is built on gentle slopes. Its architecture is simple and dignified. Its concrete walls are painted the subtle pastel colors of the tropics. A hurricane could never sweep away such a home as this.

There is a neatness and an orderliness about Calimano that didn't just happen and a talk with the manager pointed up the obvious but important lesson that good managers make good projects. For to Hugo Echandy Abreu, manager of Calimano, trim lawns and immaculate service areas have a high priority and he deals gently but firmly with children who forget this preference of his. He is conscious of a need for housekeeping guidance and counselling service and, with the cooperation of the Department of Agriculture, he plans both group meetings and home visits. He knows that in a project where rents based on income average $7.50 a month, arranging for lessons in nutrition and budgeting is a vital part of his job.

"Big City" Building

In contrast to the Puerto Rico Housing Authority's maze of small projects spreading through the countryside to distant towns like Guayama is San Juan's Luis Llorens Torres, a 2610-unit, big city project now nearing completion. Torres is a beautifully designed but high density project of three- and four-story apartment buildings. The elevator boy from the Caribe Hilton Hotel, whom we saw waiting to file an application for housing at the authority office, will find that, like the hotel, the caserio provides a balcony for every unit.

But private balconies do not necessarily mean high costs. Unit cost for Torres is $5747 and at no time have the housing agencies of Puerto Rico been unable to build within the maximums permitted under the federally aided low-rent program. This achievement has been possible because, in many ways, construction is simplified. There are no heating facilities in Puerto Rican housing. At Torres, stairways are open. Since there are few flies and mosquitos, no windows or screens are required. For privacy, shutters are used. Electric stoves are provided but the people of Puerto Rico do no baking and ovens are not included. Hot water systems are an innovation of the last 10 years and Torres does not have one, although each unit has a full bathroom equipped with a *cold* shower. Kitchens do not have refrigeration but they do have ample built-in cupboards and work spaces of poured concrete.

The Virgin Islands

To a caneworker living at Calimano or to an elevator boy waiting hopefully for initial occupancy at Torres, the Virgin Islands probably seem remote. But a Puerto Rican business man might make the 40 minute flight from San Juan to St. Thomas, Virgin Islands, once or twice a week. There he would find the same public housing and redevelopment activity that is occurring in his own community.

The island of St. Thomas is but nine miles long and three miles wide. The people of the town of Charlotte Amalie on St. Thomas have a lively interest in their small world and when there was a ground breaking ceremony on February 26 to commemorate the beginning of a 240-unit project, it developed into an important affair. Drew Pearson came for the occasion, as the project is to be named Paul Pearson Homes in honor of his father, first civilian governor of the islands. Charlotte Amalie's newspaper, the *Daily News*, issued a 42 page special edition, with full page advertisements and messages from assorted officials.

Pearson Homes will be the first low-rent project built in the Virgin Islands under the Housing Act of 1949 and nearly everyone in Charlotte Amalie is familiar with details about it. The guard on duty at the governor's home, for example, referred precisely to the new development as a "low-rent public housing project." Most citizens could tell you, too, that the project will be fire resistant and will be terra cotta with white accents. An important feature will be storage space under the project

for 1,800,000 gallons of water, since the water supply is scant at St. Thomas.

The redevelopment program of the Virgin Islands is in its beginning stages with four sites selected and initial surveys just getting under way.

Mayaguez, Ponce

Back in Puerto Rico, the cities of Mayaguez and Ponce are both proceeding with low-rent and redevelopment programs. Mayaguez was the first city in the United States and the islands to obtain a federal grant under Title I. Earlier it had operated under a temporary loan of $282,369 and then received a capital grant of $127,623 for El Malecon, the first of three sites presently scheduled for redevelopment.

The Ponce authority announces in bright blue letters along the margin of its stationery that it is the "oldest housing authority in Puerto Rico." It has under construction at the moment enough units to double its present program and will soon call for bids for an additional low-rent project.

Private Housing

Even though the average annual income in Puerto Rico is exceedingly low, there is a continuing demand for private housing. Along a broad highway leading from San Juan south to Caguas are many new homes that might very well serve as examples of the best in modern architecture. Along this route is the Santa Maria housing development, where spacious, well-proportioned single homes have been built in a subdivision of large lots and rolling terrain.

And in Rio Piedras, near the campus of the University of Puerto Rico, two circled pine trees, symbol of the cooperative movement, mark the site of a cooperative housing project now under construction.

Multi-storied apartment buildings—luxury type or modest—seem to be springing up everywhere. Interpreting the term "private housing" rather broadly, one might even include the Caribe Hilton Hotel, recently built by the Puerto Rican government at a cost of $8 million and operated at a profit by the Hilton chain. Famous for its balconies with a view (every room has a balcony and every balcony has a view of the ocean), it is attracting capacity crowds of American tourists.

PAUL M. PEARSON GARDENS
HOUSING PROJECT V. I. 1-1
A DEVELOPMENT OF THE
VIRGIN ISLANDS HOUSING &
REDEVELOPMENT AUTHORITY
THESE HOMES ARE BUILT WITH FEDERAL
AID UNDER THE LOW RENT PROGRAM OF THE
PUBLIC HOUSING ADMINISTRATION
HOUSING & HOME FINANCE AGENCY
UNITED STATES OF

Drew Pearson was in Charlotte Amalie, the Virgin Islands in February for the dedication of a public housing project named for his father. He is shown above turning the first earth for the project.

The private housing that is receiving the most attention, however, is not Puerto Rico's best private housing, but Puerto Nuevo, referred to always as "the largest private housing development in the world"—and always mentioned when housing is discussed.

The Puerto Rico Planning Board, in its publication, *Housing in Puerto Rico,* labels Puerto Nuevo houses as minimum type dwellings. They sell for $3995, are FHA insured, and are very often purchased by veterans taking advantage of their GI benefits. They are located—4426 of them—in the San Juan area on lots 39 feet x 69 feet. Some sell above the $3995 price because they are on larger lots and front avenues or main streets. The houses are of similar design and construction, usually with a living-dining room, kitchen, two bedrooms, bath, and porch.

Puerto Nuevo's 4426 concrete squares, stretching row on row, must have been a monotonous sight when they were completed in 1948 and 1949. They are monotonous in 1952—but pride of ownership, a quality much in evidence in Puerto Rico, has brought about changes. Porches, porch-rooms, and rooms have been added here and there. Fences and trellises have been built to form a background for tropical flowers. Color schemes of every variation are used, with turquoise and pink ranking high in popularity. The Everlasting Development Corporation did not bring imaginative planning to its project but occupants are doing what they can to remedy the situation.

"Secrets of Success"

Significance of Puerto Rico's housing program, both public and private, lies in the fact that there is constant effort to expand and improve it.

Typical of the progressive attitude is the model housing idea. Since 1934, the Puerto Rico Model Housing Board, created by the Congress of the United States, has had an allocation of $30,000 a year for the purpose of building experimental houses of all kinds. One gets the impression that in Puerto Rico things proceed on the basis that the new way may very well turn out to be the better way. It does not do to attach a disproportionate value to the status quo and it appears that this approach is one factor that has contributed to partial solution of the island's over-all housing problem.

Secondly, there is the cost picture referred to previously. The construction features already mentioned and low prevailing wages tend to reduce building costs. Small room sizes, for example, are practical in a region where outdoor living can continue the year round. However, there is nothing unsubstantial about the public housing of the tropics. Some projects are built to with-

(*Continued column three, page* 147)

PRIVATE HOUSING IN PUERTO RICO

ONE OF THE 4,426 PUERTO NUEVO UNITS

ASIA

report of a United Nations mission

During the two-month period November 1950 through January 1951, a four-member United Nations tropical mission surveyed housing conditions in India, Pakistan, Indonesia, Thailand, Malaya, and Singapore. Members of the mission were *Jacob L. Crane,* Assistant to the Administrator, United States Housing and Home Finance Agency, Chairman; *Professor Jacobus P. Thysse,* University of Indonesia, Bandung, Java; *Robert Gardner-Medwin,* Chief Architect and Planning Officer, Department of Health for Scotland, Rapporteur; and *Antonio C. Kayanan,* Professor of Planning and Housing and Chief Planner, National Urban Planning Commission of the Philippines, Secretary.

Presented below is a press release issued by UN on the mission in April 1951. Full report of the mission is available through the Department of Social Affairs, United Nations, New York City, New York: *Low Cost Housing in South and South-East Asia,* UN document ST/SOA/3/Rev. 1, 16 July 1951.

In some Asian countries the housing problem is second only to the food problem. The prevailing housing conditions in Asia create the greatest housing problem in the world. More than 100 million Asian families—perhaps as many as 150 million—live in crowded, insanitary, substandard quarters.

INDIA

The mission quotes India's environmental hygiene committee on the country's present housing problem. The committee estimates that over India as a whole, apart from the influx of 6 million refugees, the urban population in the decade ending in 1951 will have increased by 66 per cent, while the increase of houses will not exceed 20 per cent. It adds that to maintain even the standards of 1941, new houses will be needed for 46 per cent of 9.2 million people, or about 1.84 million houses at a density of five per family.

The mission reports that the commonest building material all over India is mud, usually mixed with cow dung and fibrous grasses or plastered-over wattle. In the drier parts, mud is used for walls and also for flat roofs. In the south and around Calcutta, where the winter is more temperate, bamboo and similar types of matting are used for part or all of the walls and palm or reed thatching is common. In the rice lands, there are wood framed houses raised above the ground and in them bamboo mats and thatch are also used. In the Punjab and in most of the desert lands, the houses in the villages are often huddled together but in Madras it is usual to find more open developments.

India, says the mission, is only too anxious to solve her far-reaching housing problems and the present organization of the Indian government and its planning commission has the capacity to conceive large programs. Her desperate handicap is that she has not the technical staff to plan and execute such programs in the field.

PAKISTAN

One almost universal feature of houses in Pakistan, the mission reports, is the high walled courtyard at the back of every house, demanded by the Muslim Purdah. This can be made a very pleasant area if it is large enough in which to grow a tree or a vine, the report states.

The mission draws a difference between the refugee situation in Pakistan and that in India. In India, it states, the refugees flocked to cities that were already seriously overgrown. In Pakistan they came to small cities that could afford to expand. This difference, however, did not lessen the immediate housing problem; in fact, the proportionate population increase in Karachi and Lahore was greater than in the Indian cities.

One of the most serious effects of the arrival of refugees in the Pakistan capital was the sudden reduction in the water supply of the city, says the mission. It now stands at only 14 gallons per head per day but it is hoped to increase this amount to 30 gallons if the dollar problem, the slow delivery of pipes, and the shortage of technicians and equipment can be overcome.

Regarding the progress of housing research, the mission discovered in East Pakistan an interesting experimental

house with a bow-shaped, bamboo-cement roof and wall panels of similar construction. Roof and wall slabs were 1½ inches to 2 inches thick and outside walls had a double skin for insulation. Further research into bamboo reinforcement and, likewise, jute reinforcement, should be valuable, the mission states.

The big developments now operating in Pakistan seemed to the mission to show remarkable spirit and competence and it believes there is a good opportunity for harnessing the power behind these ventures to a nationwide housing drive.

MALAYA

The mission found that urban congestion in Malaya was aggravated by the war, for people fled to cities in the south, like Singapore, in advance of the Japanese drive down the Malay peninsula in 1942. It was amazing, the mission points out, how the population of Singapore almost doubled in less than 20 years since 1931; in addition, there was during the war practically no construction for civilian housing purposes.

Hence, Singapore is an overcrowded city, the mission reports. About one-fourth of available rooms in the city have six or more occupants. Only a very small proportion of families have a home that they can satisfactorily call their own. Only 6 per cent own their homes. About 22 per cent rent a house or a complete unit of an apartment or terrace house. The rest share rooms or cubicles with others, sometimes sleeping in corridors, kitchens, or on shelves over or under staircases.

Regarding types of houses in the city, the mission recalls that for the last century Singapore has been a city of shop-houses—houses that are used as shops also. A shop-house occupies most of the area of a very narrow lot, except for small openings that were originally meant for air-wells but that subsequently became mere flues for cooking. In some cases these openings have been completely roofed over.

The mission points out that Malaya has unutilized resources and shows how applied research could assure increased use of local building material. It states that bamboo, if flattened and cured, could be more useful for covering. Properly treated, bamboo could reinforce masonry or plaster. Coconut husks could be converted into roofing shingles, wall boards, or floor tiles. Foam-concrete blocks, unburned clay tiles, and stabilized earth construction, the mission states, have been tried and found successful under certain conditions.

THE MISSION AT WORK IN BOMBAY

Pictured above are members of the UN Asian mission on an inspection tour through Bombay (Jacob Crane of the United States is shown in the right foreground). In the background is a new multi-family housing development of the Bombay State Housing Board.

THAILAND

The mission reports that the department of housing was created only in 1949. A town planning bill has been drafted but so far there are no country planning regulations in force. The difficulty that the government has at present is that as yet there is little public support for and understanding of the possibilities of housing and planning. The ministry of public welfare has sponsored small schemes here and there but it is not equipped, legally or technically, to work out a comprehensive program.

The real housing shortages in Thailand, according to the mission, are in the towns and cities, many of which have great difficulties in drainage and sanitation.

Bangkok and towns like Palembang and Bandjermasin in Indonesia face problems similar to those in certain cities in the Netherlands, in that they have the same problems of lowering the water level and keeping it under control and the same resulting problems of sewage disposal. The water difficulty makes a sewerage system very costly and hampers the natural absorption of excrements in the soil.

The mission gives a word picture of the Thai capital: Bangkok is threaded with canals in which the people wash themselves and their clothes, swim, and too often dispose of their household wastes. Night soil is mostly disposed of in septic tanks, cesspools, or the open water of rivers, canals, or ditches. The bucket latrine system for disposal of night soil has lately been abolished. This same water is not infrequently used for drinking, especially by the great number of people who live in boats on the rivers and canals.

The mission expresses its belief that the first task for the government is to get a clear picture of the nature and scope of its housing problems; the next step is to determine a national housing policy and program. A study should be made of the several possible methods of housing finance that would be appropriate for Thailand from her economic as well as from her social point of view.

INDONESIA

In contrast with North India, says the mission, Indonesia has to shelter its population against the cold only in the few very high mountain villages but all houses must provide protection against the heat and against heavy tropical rain. These problems require

(*Continued column one, page* 150)

ISRAEL

faces staggering housing problems

DR. NADIA STEIN
Tel Aviv, Israel

The current year will mark the initiation of the so-called Popular Housing Scheme of the Israel government—a new feature in Israel's policy of publicly assisted housing.

The scheme was announced by the Labour and Housing Minister, Mrs. Golda Meyerson, in May 1951 and aims at providing 48,000 housing units within four years—to begin during 1952—for families resident in the country prior to July 1, 1950 and not occupying or possessing more than one room. (Families of more than four persons, however, will also be eligible under the scheme, even though living in a somewhat larger dwelling.)

The projected housing unit is to comprise two rooms, a hall, and conveniences on an area of 50 square meters, while an additional 200 square meters are reserved for the garden. It is anticipated that the unit will cost an average of 2400 Israeli pounds (I£), with the price differing according to locality. Of this sum, the prospective owner will have to deposit I£500. The government will grant a first mortgage of I£700. Until the participants take possession of their flat, they will be required to pay monthly I£10 to I£15 and when they move in, they will have to make up for the remaining balance in a lump sum payment. The monthly payments will be exempt from income tax and the government will grant land rights for 99 years. The housing unit will become the *property* of the purchaser, with the restriction that during the first years it cannot be sold, in order to prevent speculation.*

*Price and payments may be noticeably raised in consequence of the government's new currency and anti-inflation policy, inaugurated in February.

The houses will be built in 21 towns throughout the country. People living in country districts, however, will not be accepted for registration for flats in the densely populated towns of the coastal plain, for the reason that dispersal of the population is a governmental goal that would be lost by making these country dwellers eligible under the new program.

The scheme is a departure from the government housing policy as pursued up to now. Past policy has concentrated so far almost exclusively on the provision of housing to new immigrants with no means at all, or with very restricted means.

Immigrant Needs

Of the 650,000 immigrants who have poured into the country in the three years since the establishment of the State of Israel, from May 14, 1948 to May 1951, only a very small percentage came with capital in their possession worth mentioning. The overwhelming majority were war refugees, freed inmates of Nazi concentration camps and emigrants from hostile Arab countries. They were not only completely destitute and dependent on every imaginable kind of assistance but comprised a disproportionately large percentage of aged, invalid, and sick people. The government had declared a policy of nonselective immigration in accordance with the principle that "the homeland" was to receive every Jew desiring to come.

In anticipation of this "return of the exiles," while still in the thick of war and not even knowing its own borders, the government set up a Town and Country Planning Department, which was to map out where to direct the immigrants, where to establish the settlements, where to lay out the roads, where to start levelling the ground, where to drill for water. For, to absorb the immigrants meant to build up the country at the same time: *for* and *with* them.

A housing section was simultaneously set up as a subdepartment of the planning institute, with the tasks of beginning technical research into the most rational kind of housing, at the lowest cost, and of exploring local building materials and mass construction.

At the first suspension of hostilities, the government proclaimed its housing policy, promising to take care of the accommodation of all needy immigrants as well as that of ex-soldiers and of every needy resident who, for whatever reason, had not yet found a decent roof over his head. This move was a revolutionary one, for up to then Israel had not known anything but private initiative in the sphere of housing.* But it was clear that private initiative could not tackle the gigantic job facing the community, either through speculative or cooperative investment.

Temporary Shelter

During the first year, abandoned Arab quarters in towns and villages, ramshackle and primitive as many of them were, were the main shelter resource used for the immigrants. They provided an equivalent of 77,000 rooms, in which were crowded about 200,000 people. In spring 1949, the government-sponsored building society Amidar ("my people shall dwell") was founded, bringing together all building societies of the country—about 13 at that time. Among them were the experienced large cooperative housing concern of the labor organization, known as Shikun; the middle-class rural and urban resettlement association, Rassco, partly financed from national funds; and a number of private building societies formed to assist immigrants from a particular country of origin, or members of some one political party, in

*Far from assisting housing, the Mandatory Government did not even tolerate the inclusion of building loans in the municipal budgets under its control.

building their homes. At the end of the year 1949, the government itself undertook to erect large-scale housing for immigrants, after having concentrated this activity under the Ministry of Labour and Public Works.

The Record

All in all, about 70,000 permanent housing units of one-, one and a half-, and two-room flats, with conveniences, have been built all over the country by the government, or subsidized by it to the amount of 50 million pounds. The units have been provided in one- or two-story detached or semi-detached houses, rented out for cheap rates or, wherever possible, offered for sale under favorable terms. Thus, about another 250,000 people could be provided with a dwelling facility. They were concrete-poured structures, most of them built in such a way that they could be enlarged as soon as the occupants earned the means to permit themselves more spacious quarters.

There are 65,000 families still sheltered in temporary housing—housing that ranges from tents and canvas huts to tin and wooden barracks—as reported by the housing minister when winter floods brought much misery to their inhabitants. Every device is being tried out to speed up the provision of permanent housing for this group of about 200,000 people. But only time and the further development of the economic productivity of this country-in-the-making—as well as the lessening of the top-heavy military expenses enforced by the tensions on the international and the local scene—can bring the solution.

With all the help of Jewry throughout the world, living under, so to speak, normal conditions, and especially with the magnanimous help of American Jewry—and lately also with the benevolent grants-in-aid of the United States government—progress in housing is painfully slow. The kind of housing provided can only be of the most rigid austerity type—a far cry from what is being provided in the new American rural nonfarm public housing venture for unincorporated villages: perhaps the closest parallel to Israel's immigrant housing.

Meanwhile, the needs of the residents of the country, as opposed to immigrants, required attention. Their needs, already acute because of the standstill of civil building activities during World War II and further accentuated by destruction during the times of political unrest and the national war afterwards, could not be further left to themselves and to the abuses that had developed on the private housing market owing to the pressing demand. Untold tragedies resulted from families living doubled and tripled up—or muddled into one rented room.

In the first quarter of 1950, the government had to decide to encourage building for this category of the population by providing credits for cheap mortgages to various banks. It allotted the value of 13,500 mortgage loans at I£500 each—this amount to be lent out at 5.5 per cent for a period of 14 years to those who could supplement from other sources the balance necessary for the erection of the type of a two-room house that was to be constructed under this scheme by public bodies and recognized companies or organizations. Thanks to this transaction, building activities of this kind have considerably expanded but are badly checked by the difficulty of obtaining the necessary building materials in the world market and by their excessive price.

The lead in providing resident housing had actually been given by Shikun which started a scheme in 1949 for its "veteran" members, or *vatikim* as they are called in Hebrew, by announcing its ambitious intention of erecting within five years homes for all its members not yet housed according to its proclaimed principles. Since the inception of its activity in 1928, Shikun has built about 13,600 housing units for 56,000 of its members in urban and rural housing projects. They are the most advanced type of planned communities to be found in the country. This activity is now superseded by the new government Popular Housing Scheme mentioned at the beginning of this article.

Up to December 1951, a total of 100,000 people had registered for the new government scheme. According to a breakdown of the statistics, about 49 per cent of those registered had no room of their own but had to share it with somebody else, in many cases even with a stranger. Among the war veterans, this proportion was still worse: 65 per cent—and thousands of them had had to delay their marriage because of lack of accommodation. Seven per cent of those registered have been resident in the country for from 16 to 25 years, 21 per cent from 6 to 15 years.

Private Building

To complete the over-all picture, it may be added that private building of dwellings during the quoted three year period accounts for no less than 40 per cent of the total—for 30,000 housing units. This, despite heavy burdens. The price for such housing is two to three—or even more—times as high as that of the self-cost buildings and they are only within reach of the wealthy class of residents and immigrants. However, many people of modest means have indebted themselves for their lifetime in order to buy a "luxury" flat to end their housing plight.

To house all those dependent on public financial assistance in decent permanent quarters, even of the plainest type—that is, to take care of the 100,000 residents and the 200,000 immigrants already in the country and still in provisory dwellings—would call for an expense of 100 million pounds. It will be next to a miracle if Israel succeeds within the course of the next few years in mastering this task of giant proportions (bearing in mind that there is continuous immigration into the country). It is a task that much mightier and old, established states have failed to accomplish. But Israel thrives on miracles, although they are, to a decisive part, determined as much by lucky coincidences as by the miraculous propelling of the inner forces of heart and soul.

THE PICTURES —

Page 143—Government housing in Beersheba, a town grown from 4000 to 24,000. Six-family blocks of flats.
Below, left—Immigrant transition housing: canvas huts.
Below, center—Cooperative village: one-room houses built in rural areas for new immigrants.
Below, right — The American "Tournalayer" method used for poured concrete, four-family, two-story housing.

THE PHILIPPINES . . . low-rental housing

G. FRANK CORDNER
Housing Consultant,
Mutual Security Agency, Manila

The Japanese invasion, three years of occupation and looting, and the final campaign of liberation — this combination of violence has left the farms of the Philippines ruined, the farm animals depleted in numbers, the industrial economy completely destroyed, and the cities, particularly Manila, in ruins.

Thousands of rural families were driven to urban areas, Manila especially, in search of a livelihood and to become squatters on land belonging to others. Nowhere in Manila today is one out of sight of a squatter's shack and concentrations of them have added to the slums of this great city. Postwar reconstruction, unrest, "dissident" trouble, "Huks" (the guerrilla rebels against American rule, most numerous and active in the provinces surrounding Manila) have caused a continuance of the migration from farm to city.

Reconstruction

On July 4, 1946, approximately a year after the Japanese surrender, President Truman proclaimed the independence of the islands and the Republic of the Philippines came into existence. Slowly, economic order replaced chaos and, with American financial assistance, the pace of rehabilitation was accelerated. With ability to produce food and goods gone, a three-year wave of buying imported consumer goods and luxuries left little capital for restoring agriculture and industry and the production of building materials suffered along with other durable goods.

Through legislation enacted in 1941, a public housing agency was created and one project of houses for sale was completed before war brought a stop to its work. Resumption of activities was made possible in 1947 when the Philippine congress appropriated funds.

U. S. Aid

Late in 1946, and by request, the United States sent a housing mission to the Philippines to survey housing needs and make recommendations. In 1950, the United States economic survey mission to the Philippines urged the construction of dwellings for families of low income as one important phase of bettering their standard of living. A United Nations tropical housing mission (see page 141), investigating conditions in southeast Asia in late 1950, while unable to visit the Philippines, included a chapter on housing needs in the Philippines, prepared by the Filipino member, in its report.

The United States Economic Cooperation Administration (ECA) special technical and economic mission to the Philippines commenced work in early 1951 by providing limited financial assistance and technical aid on a temporary but continuous, full-time basis. January 1952 saw its absorption by the newly created Mutual Security Agency (MSA). While its current emphasis is on increasing and improving agricultural production, other measures for raising living standards by such means as housing are under way. Its financial aid is limited to importing essential building materials, largely metal, the purchase of which requires dollars.

Unlike the preceding temporary missions, valuable as they were, the ECA-MSA mission, through its continuing nature has time to become more freely acquainted with local conditions and needs, acquire a sympathetic understanding of the obstacles to be overcome, and to develop remedies for them.

The Record

Prior to ECA's arrival, the People's Homesite and Housing Corporation, the public housing agency of the government, had with its own funds completed and tenanted two suburban projects. These projects are known as Kamias No. 1, for 1013 families, and Kamias No. 2, for 1105. Rents ranging from 20 to 41 pesos (official rate, 2 pesos to $1 in United States currency) are based on the physical facilities offered. A third project for 1200 families is under construction and land has been purchased for a fourth, to house 3300 families.

With an average Filipino family size of five persons, these four adjacent projects will eventually house approximately 33,000 people. The now vacant sites are in Quezon City, the "new capital" of the republic. It is on high ground immediately adjacent on the northeast to the city of Manila.

The dwellings in the first two projects are of one-story, concrete block, bungalow type construction, largely paired in "twin" or double houses. The

QUEZON CITY — PROJECTS NO. 2 AND 3

Shown on the left, is the Philippines' first MSA-aided project—Quezon City Project No. 3. The light wood roof structure supports corrugated asbestos-cement sheets (note picture on page 145). The units are two-family bungalows.

On the right is Quezon City Project No. 2—a view down a typical street. The picture on page 145 is also from Project No. 2. The windows that can be clearly seen on page 145 are "glazed" with naturally flat sea shells set in wood members.

dwelling plan shows a square form, one-half of which is devoted to a living-dining-kitchen room, with a bathroom in a rear corner, and the other half to two bedrooms. It is available in three sizes, in order to have three rent grades.

Concrete floors laid on the ground are a radical departure from the Filipino tradition that a house floor must be elevated at least one meter above the earth. Bathrooms are equipped with a water closet, showerbath, and water faucet and the kitchen has a sink, but no provision is made for hot water. A light wood roof structure supports corrugated asbestos-cement sheets. Tenants furnish their own cooking appliance, usually a two-burner kerosene oil range, and illumination is by a few electric drop cords from the exposed underside of the roof. Each dwelling has its own small but private front and rear yards, which tenants develop into fruit, vegetable, and flower gardens.

Something New

The first MSA-aided project, No. 3, while simulating its predecessors in many details, will introduce some innovations, such as row houses of both one and two stories; three-bedroom dwellings; omission of windows on ends of buildings; and installation of kitchen worktops, shelving, and open-front base cabinets.

The buildings in the completed projects are very attractive and tenants have made good use of their yards. Roads, however, are poor; few trees have been planted; and no attempt has been made to develop community facilities, either outdoor or indoor. Shortage of funds has necessitated their diversion into the construction of dwellings, the demand for which is great. Project management is from the Manila office, leaving a vacuum in management-tenant relations and no focal point for the project.

While the occupied projects fill the need of what can be called families of low income, they are families who have the security of government employment and can pay transportation costs to their work. The rent range is too high for the vast majority of lower-income families and the sites too remote from the principal sources of employment in Manila. The housing agency is required to pay all taxes, borrow money, pay interest, retire loans in 10 years, and in all other ways be self-liquidating. Under such a policy, really low rents seem impossible and overtures are being made to the government via amendments to legislation to change it.

Slum Clearance

In order to bring low-rent housing closer to the people and thereby reduce dislocation problems, plans are under way, with MSA aid, to construct a 500 family, high density project on a well located site within Manila and, on an outlying site, a land and utility type subdivision following Puerto Rican precedent (see page 137), to which squatters can move their shacks or where they can build new ones. Both projects will become relocation centers for slum dwellers and thereby create the first phase of a slum clearance project.

Until recently, no cities other than Manila had made requests for government aid to their housing but popular interest is strong. It is expected that operations outside the capital will soon take shape.

Of paramount importance is the great need to improve the lot of the man who builds his own dwelling, particularly in rural communities. The Philippine Red Cross reports that in the past six years a total of 534,776 homes have been destroyed in the Philippine Islands by disasters, principally typhoons, conflagrations, and earthquakes. Tidal waves and volcanic eruptions contributed to the huge toll which during the six year period left 14 per cent of the total population homeless. The naturally short life of the fibrous materials used in home construction adds further to the total.

The Need

The average family in the Islands needs a house that cannot easily be whisked away by a typhoon, that cannot be shaken down, and that will not readily catch and transmit fire. If it can be made more or less rot and vermin resistant, so much the better. Many traditions of building may have to be broken and picturesqueness regretfully abandoned. The age-old methods of utilizing bamboo, palm, and grass fibers may have to undergo radical revisions in favor of security and safety. The traditional thatch roof, always presenting a serious fire hazard, may have to be eliminated. Costs must be kept within ability to pay. Currently being sought are means to develop new uses and combinations of the native materials and the organizing of self-help housing cooperatives to hold down costs. Permanent, masonry, urban type housing is too costly to spread far and government funds should probably not be invested in ephemeral projects but, with a little aid and instruction, the good can be spread over an infinitely wider segment of the people.

To provide the basis upon which to build up a self-help housing program, an MSA rural sociologist is making an intensive study of rural village life. No information of this nature is currently available.

THE NAHO PRESIDENT'S CORNER

IT'S REGIONAL CONFERENCE TIME . . .

With the closer approach of the presidential election of 1952, more and more the phrases "grass roots" and "rank-and-file" and "the sentiment at the grass roots" resound from radio newscasters, television panels, and newspaper editorials. Perennially, in relationship to many other things we hear the phrases: "charity begins at home" or "good government begins at the local level" or "the cradle of democracy lies in the New England town meeting."

All of these phrases, proverbs, and aphorisms have one basic elemental thought—that is, that no principle can rise above the level of its constituent elements; no whole is ever more perfect than its parts.

And the National Association of Housing Officials has *its* local level, *its* "grass roots." They lie in the area of chapter and regional activity. The truth of this statement struck me forcibly when on March 26 I was privileged to address a luncheon of our Potomac Chapter, with no less than 115 persons present. I was given great encouragement by the thought that the enthusiasm, interest in operational problems, and professional zeal exhibited there could not help but leaven and infuse the entire national housing and redevelopment picture. Good housing and good urban redevelopment practices begin at the local authority level and the composite or total picture nationally will but reflect the local community status.

Conference Schedule

The next two months are particularly suited to a proper emphasis upon this theme, for this is "regional conference time." Already regional conferences have been scheduled as follows:

Southwest—Mineral Wells, Texas—April 16-18.

New England—Providence, Rhode Island—May 19-20.

Middle Atlantic—Pittsburgh, Pennsylvania—May 22-23.

Pacific Southwest—Coronado, California—May 25-27.

North Central—St. Paul, Minnesota—June 2-3.

Southeastern—Asheville, North Carolina—June 16-18.

The Pacific Northwest conference will follow sometime in the autumn.

These regional meetings are the foundation of all NAHO conference activities and are not subordinate in importance to the national conference itself. It is at these regional conferences that the "grass roots sentiments" have an opportunity to become articulated. It is here that management practices, maintenance procedures, development ideas, financial methods, tenant selection plans, and administrative concepts can be weighed, compared, contrasted, and intelligently evaluated. These regional conferences are the "workshops" of the housing and urban redevelopment profession in the United States. The preliminary prospectuses of this year's sessions are in the possession of your national office and indicate a high level of worthwhile programs at all of them.

Suggestions

I am wondering, therefore, if it would be presumptuous for your national president to offer some suggestions to the entire national membership in behalf of the pending organization of these conferences. They are offered sincerely and respectfully.

1—*To all commissioners of local housing and urban redevelopment authorities*: Permission to attend the regional conference is an investment in new ideas, new zest, and renewed morale that will repay the local authority many times over for the travel expenses incurred. Respectfully, your national president requests that as many of your staff as can properly be operationally spared and financially supported be permitted to attend. An enthusiastic employee is a good employee and regional conferences impart enthusiasm in large doses.

2—*To all prospective delegates*: If pre-registration is required by your program committee or your host city, cooperate. Nothing is more confusing, or even detrimental to a good program, than uncertainty on the eve of a conference—than still to be ignorant as to the number expecting to attend, the number to be provided for at luncheons, and the number planning to participate in panels and discussions.

3—*To all invited to speak or otherwise participate in the program*: Please, *please* accept—or, if necessary, reject—such invitations promptly. It is not only imperative for you to do so to insure a good conference, but also a gesture of fine courtesy. And if you accept, do spend time and thought on your assignment, so that you come up with what the program promises.

4—*To all national committees*: Here is a real opportunity for new material and valuable ideas to be channeled to your national bodies in order that your deliberations never become abstract or purely theoretical—but genuinely reflect grass roots practical problems and issues.

5—*To every member of the National Association of Housing Officials*: Support, endorse, and evidence the deepest interest in all regional conferences.

Perhaps all this sounds elementary, redundant, or even "school teacherish" (after all, I once *was* a school teacher). Nevertheless, I am convinced that in our regional conferences reside all the sources of NAHO's strength and purpose, for here—at the local level—public housing and urban redevelopment display their wares, clear their ideas, and renew their strength. Let us all combine in that kind of cooperation and support that will make 1952 the "year of great regional conferences."

Clarence C. Klein, April 1952

WEST INDIES—

(*Continued from page* 140)

stand wind pressure of 125 miles per hour, a necessary precaution because of the frequent hurricanes. And, if the unit cost of $5747 seems like a lot of money for a tropical house, it should be remembered that there is no metal in Puerto Rico and most construction items other than the basic building concrete must be shipped from the States. Also, land costs are high, since there is only about one acre per person for the entire island.

A third reason for Puerto Rico's success is that there is literally no opposi-

(*Continued column one, page* 149)

NAHO 1952 AWARDS—

rules established; nominations solicited

Individuals who have rendered distinguished housing or redevelopment service and local agencies that have established records of outstanding achievement in housing or redevelopment during the period July 1, 1951 to July 1, 1952 are eligible to receive one of the four 1952 awards being offered by the National Association of Housing Officials.

A five-member committee of judges for these awards (see pictures below) met during March and developed a set of qualifications for the awards and procedures for the submittal of nominations.

At the 1951 annual conference of the Association in Washington, awards of this kind were conferred for the first time in the Association's history and went to Mayor Joseph M. Darst of St. Louis and to the housing authorities of Baltimore; Worcester, Massachusetts; and Yolo County, California. At the annual banquet during the 1952 conference, winners of any awards made this year will be honored.

Individual Service

Of the award for individual distinguished service, the Committee on Awards says: "In the day-to-day work that is continuously going forward in an effort to solve the problems of our communities as they relate to slums and blight—and in an effort to take families out of old and deteriorated housing and bring them into healthful new surroundings—there are men and women who are 'making history.' The Association would like to pay tribute to the individual who did most in this respect during the period mentioned."

The committee has outlined a five-point set of criteria for judging nominations for this award: (1) the person has performed "over and above" the normal demands of the position or office he holds; (2) the accomplishment cited has succeeded in the face of seemingly insuperable obstacles; (3) the fact of the achievement stands as an inspiration for housing and redevelopment officials and participants everywhere; (4) the achievement came about through a quality unique to the person cited; (5) the achievement cited is part of a well rounded performance by the individual.

Further, the judges point out that the award will not be given on a "popularity contest" basis—quality of achievement being the sole focus for the award. The individual nominated, they also point out, may be active in the field of either public or private housing or redevelopment and may be performing in either the capacity of an administrator, legislator, technician, teacher, student, or citizen leader.

Local Agency Awards

Recognition of outstanding 1952 achievement by either a local housing or redevelopment agency is to be in the form of certificates: one to an agency in a large city, one to an agency in a medium size city, and one to an agency in a small community.

The basis for award of "certificates of achievement" has been set up by the committee as follows: (1) Awards made only to agencies whose operations are fully satisfactory in terms of overall administration, efficient property maintenance, and general community relations. (2) Against this background, certificates may be awarded for outstanding 1952 achievement in some particular phase of the agency's operation: design, construction, management, community relations, etc. (3) The achievement cited must evidence that the agency was performing "over and above" the routine demands of its job. (4) The accomplishment must have succeeded in the face of seemingly insuperable obstacles. (5) Quality of achievement must be such that it will act to encourage high quality performance among other agencies, nationwide.

Next Step

Booklets detailing how nominations are to be made and carrying full statements as to qualifications for both types of award and basis for judging nominations are available from the Association's office on request.

The committee points out that in the event no individual or local agencies measure up to the above standards, no awards will be made for 1952.

COMMITTEE OF JUDGES FOR NAHO 1952 AWARDS

Pictured above are four of the five members of the committee of judges for the 1952 NAHO awards described above. Left to right are: Committee Chairman Ernest J. Bohn, Director of the Cleveland Metropolitan Housing Authority and Chairman of the Cleveland Planning Commission; W. W. Geroge, realtor and Executive Director of the Housing Authority of the City of Meridian, Mississippi; Coleman Woodbury, professor or regional planning, Harvard University and Director, Urban Redevelopment Study; James E. Lash, Director, Redevelopment Agency of the City and County of San Francisco. Not pictured is the fifth member of the committee: Frederick Bigger, a Fellow of the American Institute of Architects and Chairman of the Pittsburgh City Planning Commission.

WEST INDIES—
(*Continued from page* 147)

tion to public housing. The program moves ahead swiftly and systematically with little lost motion. There is a recognized urgent need for all the housing that can be built and it is not necessary to use valuable time and energy fussing about where to build or when.

Finally, there is a notable drive and spirit of cooperation among the housing agencies. They are, of course, busy bustling places. Most of them are adding staff but are still understaffed. In visiting them one feels the urgency and excitement that seems to prevail on the island.

The Public Agencies

Over-all planning agency is the Puerto Rico Planning, Urbanizing and Zoning Board—formed in 1941 by Governor Rexford G. Tugwell as part of Puerto Rico's "little New Deal." *Planificacion* is today's keynote in Puerto Rico. Since the planning board is directly concerned with all projects designed to improve living conditions on the island, its staff works closely with the housing agencies.

There appears to be a ready flow of technical advice not only from the planning board and the field office of the Public Housing Administration to the housing authorities, but among the authorities as well. The Puerto Rico Housing Authority, for example, is now giving planning assistance to the Virgin Islands.

With 7925 public housing units in operation and 8772 under construction, the PHA field office is exhibiting the same hurried activity found in agencies of all types. If Puerto Rico is allocated the portion of public housing construction "starts" that the field office is prepared to handle, 1470 additional units will be scheduled early this spring. Five thousand units will be completed this year.

The five authorities responsible for this encouraging record apparently look to the field office for direction with complete confidence and acceptance. They are apt to be eloquent about their relationship with PHA. In one annual report there is an expression of "everlasting gratitude" to the field office staff—and another states: "We are particularly deeply indebted to the PHA and its director for magnificent assistance and cooperation."

It would be false logic to conclude that at the moment Puerto Rico has completely met its housing need and false optimism to hope that it will do so in the near future. But what can be said is that housing is being built there on the scale intended when the Housing Act of 1949 was passed.

When Luis Munoz Marin, present popular governor of Puerto Rico and first to be elected by a vote of the people, was running for office in the fall of 1948, his campaign slogan was "Jalda Arriba"—"uphill!" Later Stuart Chase described attempts to give the island a proper place in the world of industry as "Operation Bootstrap." There is a struggle going on in Puerto Rico to achieve what has been called the "systematic improvement of an underdeveloped economy." One sees this everywhere. The housing being built seems to symbolize the monumental effort in this direction. Aids from the United States government are many and necessary—and it is inspiring to see those provided by the Housing Act of 1949 being used fully and wisely. "Jalda Arriba" and "Operation Bootstrap" make good housing slogans and they can accurately be applied to Puerto Rico.

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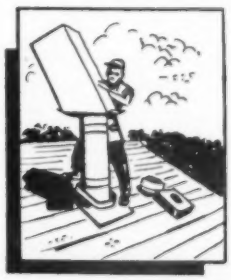

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ASIA—

(*Continued from page* 142)

a special kind of housing, orientation, and siting.

Regarding rural housing, the mission states that all buildings in the villages are constructed of vegetable material. The construction is of bamboo or timber, the walls mostly of bamboo matting; in other parts of the archipelago houses are sometimes built of timber or palm leaves. The roof is covered with attap or burnt clay rooftiles; in some parts of the archipelago, shingles of ironwood are used. Indjug, a fibre of the aren palm, is also used for roofing material.

Some improvements are necessary in the villages but housing in the towns is much more urgent.

Most of the towns have no subterranean sewer system in the areas for the very poor. Consequently, the mission states, night soil is mostly disposed of in open effluents or rivulets.

THE PHILIPPINES

Major findings in the UN report on the Philippines are covered in the article by G. Frank Cordner in this issue of the JOURNAL OF HOUSING (see page 145).

CONCLUSIONS

Following are some of the mission's over-all conclusions:

It is a fallacy to assume that better housing follows economic development automatically. Asia displays many examples of this fallacy. While some industries, like the steel industry at Jamshedpur in India, have done well with the housing of their people, this action did not follow automatically but rather by virtue of designed policy. And, in contrast to these relatively few instances, many industrial developments in Asia, as in Europe and North America, have resulted in urban slums.

The conspicuous problems and notorious problems of housing in Asia are those of the great cities. Particularly is this so where war destruction or sudden migrations have reduced the supply and increased the need. The towns, being smaller, can tackle their problems more easily and can save themselves, by normal town planning measures, from the acute congestion and slum conditions of the cities.

The United Nations could render a great service by giving technical assistance in regional planning—for instance, by providing professional experts to initiate regional surveys, advise on regional development plans, and help build up professional training.

A useful contribution has been made by the United Nations by the publication of its *Preliminary Survey of Problems of Rural Low-Cost Housing in Tropical Areas* (Doc. ST/SOA/2).

There has been relatively little serious study of alternative methods of housing finance. The United Nations and other international organizations are surveying housing finance the world over and these studies should be valuable to the Asian countries.

In the formulation of policy and program for housing and community development and in undertaking to get the most in housing and community life out of a limited resource of money, the cooperative looks very useful.

Self-help housing is the oldest and most widely applied of all methods of producing shelter. From observation in these countries and elsewhere, it is believed that aided self-help can do more to reduce money cost and to reach toward higher standards than any other combination of finance and technology.

An enormous amount of research is needed. At a cost in thousands, savings could be effected in tens of millions.

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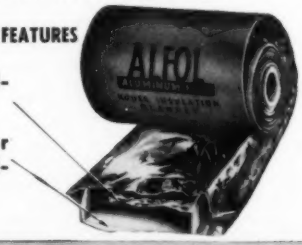

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Years of use and Test No. 2295 of Columbia Testing Laboratories clearly prove that Unique Balances are designed and built with permanent strength and will not lose their lifting power for the lifetime of the sash. Rust and corrosion proof, *their first cost is their last* . . . they present no maintenance problem at any time.

WHY?

The secret of balancing a sash perfectly is controlling accurately the lifting power of the spring. In Unique Balances and *only* in Unique Balances, this control is permanently assured by the accelerated spiral rod. Specify Unique Balances and be certain of a perfectly balanced, trouble-free, maintenance-free window sash.

the Perfect Sash Balance

Over 100 million in use throughout the world

UNIQUE BALANCE CO., INC.
25 Bruckner Blvd., Dept. JH-452
New York 54, N.Y.

Please send me detailed information on Unique Balances.

Name_____ Firm_____

Address_____

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You can build a lot more house at a lot less cost...with

RUSCO *Fully Pre-Assembled* WINDOWS and DOORS

Revolutionary new RUSCO Hot-dipped Galvanized Steel Prime Window

GLASS
RUSTPROOF LUMITE SCREEN
FELT WEATHERSTRIPPING
INSULATING SASH*
FITTED HARDWARE
WOOD OR METAL CASING

All in one unit!

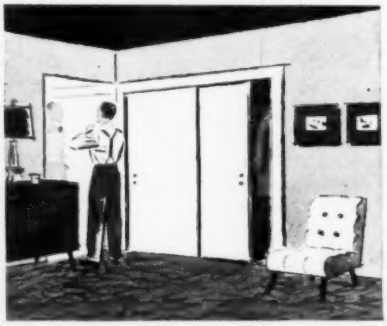
*Optional

Fully-Assembled, Factory-Painted Ready to Install!

The world's first complete window "package." Comes fully-glazed, fully-fitted, factory finished with baked-on outdoor aluminum enamel—all ready to place in the stud openings. Leading builders in every part of the country acclaim its *big savings* in installation time and labor. Compare its *installed cost* with that of the cheapest window you can buy!

RUSCO Noiseless Sliding Wardrobe Door Unit

Hollow core construction with Masonite Duolox faces. Stiles, rails, lock-block, side jambs and casings of kiln-dried white fir. Sill is clear, kiln-dried oak. Hardware applied. Simplifies closet placement and saves floor space.

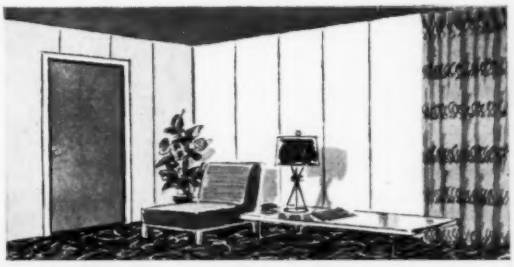


RUSCO Combination Self-Storing All-Steel Screen and Storm Door

Self-storing feature eliminates need for changing screen and glass panels. Lower glass raises for ventilation. Removable panels permit changing to all-glass or all-screen if desired. Sturdy, beautiful.

RUSCO Flush-Fitting Hollow Core Door

Available in both interior and exterior types. F.H.A. approved. Enhances and modernizes any room. Adaptable to all types of construction. Masonite Duolox faces excellent for painting.



RUSCO Interior Panel Wall Sections

The last word in simple, low-cost construction. Hollow core construction. Sound resistant, water-resistant, inert. Smooth Masonite Hardboard finish ideal for painting. Edges grooved and splined for quick installation. F.H.A. approved.

For Illustrated Literature and Full Specifications, write Dept. 7JH42

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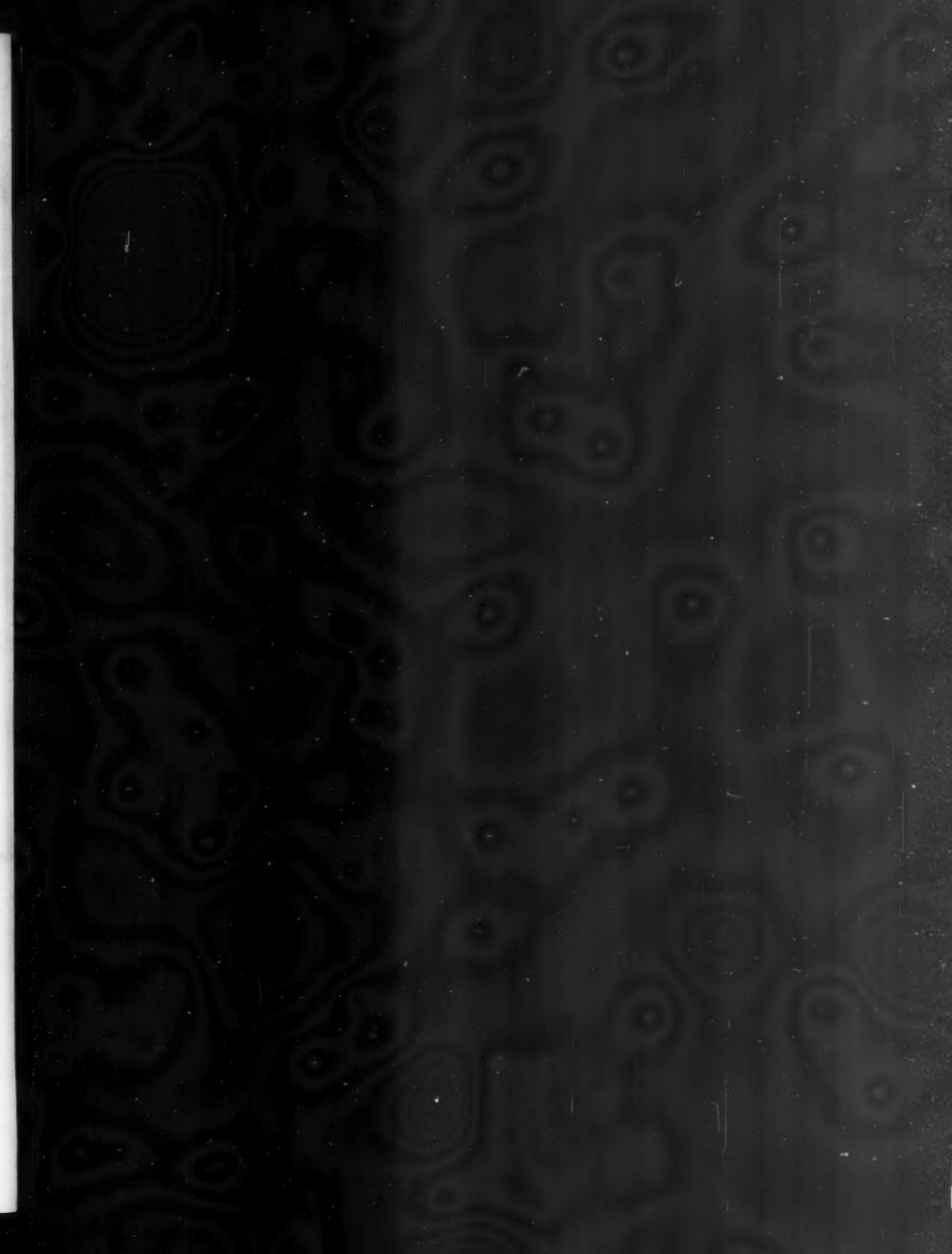
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